

## OPINION

### The Kitchen Cabinet's Iron-Rich...



Dr. Shafia Arshad

Spices are a valuable source of iron and other nutrients for those with anemia and seeking treatment of anemia.

Treatment of anemia typically involves increasing the intake of iron-rich foods and, in some cases, using iron supplements. However, several natural remedies, including spices, may be effective in treating anemia.

Anemia is a common condition characterized by a deficiency of red blood cells or hemoglobin in the blood. It can be caused by various factors, including a lack of iron in the diet, blood loss, and certain medical conditions that make it difficult for the body to absorb iron.

Anemia can lead to a range of symptoms, including fatigue, weakness, shortness of breath, and an increased heart rate, and in severe cases, it can lead to more serious complications.

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### Burning Of Rice Stubble Is A Serious Threat To The Environment



Asia Jan

The burning of this rice stubble kills the beneficial microbes, which further slows down the process of decomposing organic matter.

The economy of most South Asian countries is based on agriculture and rice is the main crop, contributing the major share. Rice feeds about one-third of the world's population as a major cereal crop and staple food. It is a rich source of starch comprising amylose and amylopectin, which are primary sources of energy.

Pakistan is the 10th largest exporter of rice, and its aroma is admired all over the world. In Pakistan, rice represents the Kharif crop, which is sown in July and harvested in November. After the harvest of rice, the paddy is processed to yield the rice, while the straw remains in the fields as a huge bulk of stubble.

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### Trypanosoma Evansi: A Notorious Blood Borne Parasite



M. JAWAD BASHIR

Trypanosomiasis is a disease of great economic importance in camels and other livestock. It causes severe economic losses. Trypanosoma evansi is considered a notorious blood-borne parasite that is responsible for this disease in camels.

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## Pakistan Can Leverage SAP Platforms To Boost Country's Economy: Faifi

The topic of how to enhance Pakistan's technological dynamics to speed up growth came up during his meeting with the Minister for Planning, Development, and Special Initiatives.

"Technology is there to support your economic and professional development; it focuses on streamlining procedures by monitoring technological trends. The objective of SAP is to simplify their customers' lives," commented Ahmed Al-Faifi Senior Vice President for the Middle East and North Africa at SAP.

During his visit to Pakistan, Ahmed Al-Faifi met with the Federal Minister for Planning, Development, and Special Initiatives, Dr. Mukhtar Ahmed,

Chairman of the Higher Education Commission (HEC), and Mr. Mazhar Ali Shah, Secretary of the Railways. He also went to the Nutshell Group's sixth annual The Future Summit in Karachi.

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Al Faifi stated: "The benefits of SAP's business solutions for effective service delivery in the public sector extend to commercial enterprises and the government sector. Pakistan's position in the world in terms of transparency is aided by a variety of SAP core business applications,

including financial, HR, audit, and many others."

The primary objective behind SAP digital transformation (or digital transformation of any kind) is to enhance the business.

SAP is constantly redefining its scope to reach out to more and more public and private companies because it is aware of Pakistan's needs for a viable IT future. It guarantees that the product is ideal for maximising productivity in each field. It takes pride in its commitment to integrating its services for a Pakistan that is more technologically advanced.

During The Future Summit, Ahmed Al-Faifi shared his thoughts on digitization and the transformation of Pakistan's

public sector enterprises. He emphasised that Pakistan is blessed with a sizable population of energetic youth. Given this, being digitally literate can be a huge advantage. Pakistan can use SAP platforms to create an enabling environment and boost its economy.

During their meeting with Secretary Railways, Mr. Mazhar Ali Shah and Mr. Ahmed Al-Faifi expressed gratitude to Pakistan Railways Management for their trust in SAP and shared their commitment to support Pakistan Railways in their digital transformation journey.

Ahmed Al-Faifi met with Chairman HEC, Dr. Mukhtar Ahmed, about the new initiative for enrolling young university student..Read More

### 8th Annual Surgical Conference Focuses On Stem Cell Research

"Sharing ideas is the first step towards innovation," said Prof. Atta-ur-Rehman, a UNESCO Science Laureate.

The 8th Annual Surgical Conference examined the most recent advances, difficulties, and opportunities in stem cell research and how they relate to surgery in an effort to foster creative treatments for fatal conditions like heart disease, stroke, burns, different cancers, diabetes, and more.

These are placing an increasing burden on Pakistan's healthcare system, economy, and general standard of living.

Through the gathering of specialists from academic institutions, research facilities, and global healthcare organisations, the conference in Pakistan sought to encourage collaboration between clinical specialties and basic science.

"Sharing ideas is the first step towards innovation," said Prof. Atta-ur-Rehman, a UNESCO Science Laureate and Professor Emeritus at the International Centre for Chemical and Biological Sciences at the University of Karachi.

"This conference is an unprecedented move towards encouraging discussions about the challenges associated with the field of stem cell science." The former Federal Minister of Education, Science, and Technology of Pakistan was Prof. Rehman.

The discussion featured contributions from 50 experts from all over the world, including keynote addresses from Marita Eisemann-Klein from Germany, Catherine Prescott from Cambridge Network, and Helena Pereira De Melo from Nova School of Law Lisbon, Portugal, to name a few. The conference featured eminent speakers..Read More

## Experts Call For Promoting Modern Trends To Boost Crops Productivity



Dr. Iqar Ahmad asserts that Pakistan urgently requires adoption of cutting-edge, cunning, and precise agricultural techniques to boost crops productivity and guarantee food security.

The experts at a seminar urged national promotion of contemporary trends, such as precision

agriculture, in order to boost crops productivity and address the nation's challenges with food security.

The Precision Agriculture and Analytics lab at the University of Agriculture Faisalabad (UAF) hosted the seminar on smart agriculture on Tuesday at the

Centre for Advanced Studies Auditorium.

Dr. Iqar Ahmad Khan, vice chancellor of the University of Agriculture in Faisalabad, presided over the discussion, and Drs. Qamar-uz-Zaman, Ahmad Ali Mallahi, and Asif Kamran, vice chancellors of the Arid University of Agriculture in Rawalpindi, also spoke.

Dr. Iqar Ahmad Khan asserts that Pakistan urgently requires the adoption of cutting-edge, cunning, and precise agricultural techniques to boost crops productivity and guarantee food security. He continued by saying that precision agriculture relies on every seed grain, every horsepower of equipment, and every hour of farm labour to remain competitive..Read More

## NCGSA To Conduct Astronomy Camp 2023 For Space Enthusiasts

The National Center for GIS and Space Applications (NCGSA)'s Education Research Lab will host "Astronomy Camp 2023" for space enthusiasts from March 3-5.

The National Center for GIS and Space Applications (NCGSA)'s Education Research Lab will host "Astronomy Camp 2023" for space enthusiasts from March 3-5. The camp will cover the basics of astronomy, observational astronomy, and computational astronomy, among other fascinating aspects of astronomy.

The camp, according to an NCGSA official, is intended to increase young space enthusiasts' interest in the fields of space science, technology, and its applications for socioeco-

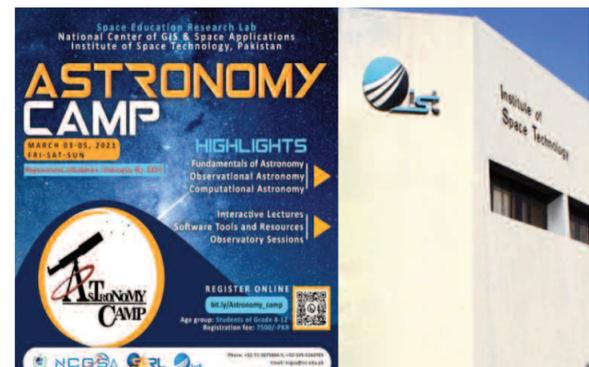
conomic development. Students will learn about the basics of astronomy, the creation of the universe, the Milky Way galaxy, using an astrolabe (an

instrument from ancient astronomy), using a hands-on telescope, and building a telescope in the course "Fundamentals of Astronomy" (The Mathematics

and Physics Behind).

While the lecture on Observatory Astronomy will cover the background and principles of observational astronomy, astrophotography (the art of photographing the night sky), organizing an observation session, and viewing the night sky through a telescope and binoculars.

The computational astronomy session will include a variety of activities, such as Stellarium: eyes on the sky, a virtual astronomy lab, and the use of CLEA to study Jupiter's moons and the speed of light. Along with interactive lectures, software resources, and observatory sessions, the camp will also feature these other elements. The Institute..Read More





## Tech Startups, Founders 2.0 Opens Its First Facility In Karachi



The IT minister praised Founders 2.0 for developing a cutting-edge facility for tech startups to grow and thrive from while greatly enhancing Pakistan's startup ecosystem.

With the debut of its first location in Karachi, the brand-new co-working space Founders 2.0 has now made more than 15,000 seats available in the market nationwide. The Sindh IT Minister, attended an exclusive dinner that was hosted by Founders 2.0 to commemorate its vision.

The IT minister praised Founders 2.0 for developing a cutting-edge facility for tech startups to grow and thrive from while greatly enhancing Pakistan's startup ecosystem.

"Founders 2.0 seems to be a dynamic and promising project. Pakistan needs more progressive facilities such as this one to facilitate the young entrepreneurs and thriving tech startups of Pakistan," said Minister.

"I hope they are successful in realising their vision of fostering growth and synergies across the tech industry, especially in these turbulent economic times. We'll keep supporting their initiatives" Added she. At the dinner, Habib Paracha, a Hollywood film producer, and other well-known political figures and leaders included Pir Muhammad Sadiq, Chairman of the Luari Pak Group, and Pir Noorullah, Special Assistant to Chief Minister Sindh.

One of the few unicorn founders in the nation right now, Jonas Deizun, a former co-founder of the Razor Group, which raised more than \$1 billion, attended the event...[Read More](#)

## Pakistan's First Helium Free MRI Machine Shows Up At KTH

The top-of-the-line Philips Ingenia Ambition model is revolutionary for both the hospital and Pakistan's healthcare sector. Arrival of the machine wasn't without difficulties.

The Khyber Teaching Hospital (KTH) in Peshawar now has Pakistan's first 1.5 Tesla Helium Free MRI machine. The top-of-the-line Philips Ingenia Ambition model is revolutionary for both the hospital and Pakistan's healthcare sector. Arrival of the machine wasn't without difficulties.

Philips engineers from Singapore and Turkey will be required during the installation and commissioning process, which is anticipated to last 25 days.

In December of last year, the device was predicted to show up. However, because of government import quotas and the lack of letters of credit (LCs), its arrival was delayed. The machine has finally arrived, and it offers patients a number of advantages.

The technology of helium-free MRI machine significantly lowers operational costs, making it more accessible to patients. The machine's sophisticated capabilities enable doctors to provide patients with more precise diagnoses, which will enhance patient outcomes...[Read More](#)

## Pakistan Spend Nearly \$6B On Food Imports In July-January

In the first seven months, Pakistan spent nearly \$6 billion on food imports, with four kitchen items accounting for more than 2/3 of the total cost.

In the first seven months, Pakistan spent nearly \$6 billion on food imports, with four kitchen items accounting for more than 2/3 of the total cost. Due to the government's neglect of the agriculture industry over the past few years, Pakistan has been a net importer of food.

The country occasionally experiences shortages of various goods, which results in high prices, including cotton, wheat, sugar, lentils, and sugar. Currently, imports supply more than 60% of the nation's demand for pulses. Local consumers experience negative effects and high inflation as a result of the rise in commodity prices on the international market.

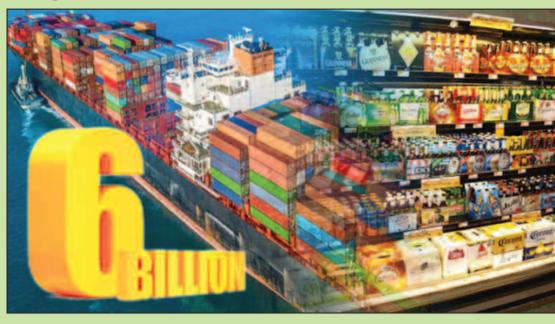
Compared to the same period last year, when imports of food totaled \$5.63 billion, the total amount recorded from July through January 2022-23 was \$5.98 billion, representing an increase of 6.3%.

The economy spent \$4.17 billion of this total on the importation of four different products: wheat, pulses, palm oil, and tea. The Pakistan Bureau of Statistics (PBS) data indicate that their combined imports during the same period last year totaled \$3.49 billion (or 62 percent of all food imports).

The main ingredient was palm oil, whose imports rose in both volume and dollar value. Dollar-for-dollar, its imports increased by 14.8% to \$2.446 billion from \$2.13 billion last year. Similarly, its volumetric imports increased by 6.96 percent to 1.927 million tons from 1.8 million tons the year before.

In addition, while soybean imports cost \$199.4 billion, they only came in at \$65 million last year, a significant increase of 206.3 percent. Interestingly, the country imported 136870 tons of soybeans compared to 51,000 tons during the same period last year, a 168.4 percent increase in volumetric imports.

Between July and January 2022-2023, wheat imports soared by 9.7 percent in volume and 23.5 percent in dollar terms. The import of 1.939 million tons of wheat cost the economy \$774.76 million during that time...[Read More](#)



## Digital Payment Systems: Step Towards High Tech Era In Healthcare

The most important idea is that it is possible to build an end-to-end digital primary health-care system tailored to the needs of low-resource settings.

"Technology advancements could significantly enhance patient care and access as managing medical conditions becomes more challenging in rural areas. The widespread adoption of digital payment systems is the first step towards a new high-tech era in healthcare delivery," said by Sania Nishtar, former chairperson of the Punjab Ehsaas Program.

According to her that "A woman with diabetes in 2025 may be able to access healthcare in two years with the help of technologies like artificial intelligence and the Internet of Things. She could track her blood sugar levels through sweat, send information to her cloud-based, blockchain-secured electronic health record, 3D print metformin pills,

order insulin through Amazon, and text message-verify the legitimacy of the pills."

The most important idea is that it is possible to build an end-to-end digital primary health-care system tailored to the needs of low-resource settings, but there is no financial incentive for private companies to link standalone technologies and no appetite within national

health-care systems.

This is especially true given the likelihood of exponential growth in computing power, associated increases in deep learning and neural networks, and breakthroughs in intelligent machines, robotization, and 3D printing.

Looking outside the health industry is necessary to fully realise the potential of this digi-

tal transformation. Specifically, one must consider digital payment systems, which, given their widespread adoption, may usher in a new era of health-care delivery.

Health system re-engineering to incorporate digital data and technology is no longer just the responsibility of government ministries. Financial institutions, companies testing out new technologies, and online retailers are all increasingly engaging in it. Sania Nishtar stated that "I observed the infrastructure needed to support digital payments while I was the chairperson of Ehsaas for three years, Pakistan's largest social safety and poverty alleviation program.

These systems' fundamental components include switches and gateways as well as legislative and regulatory frameworks. Millions of families could benefit from the unique digital ecosystem that Ehsaas is currently creating..."[Read More](#)



## USSEC's Sustain Summit Highlights Sustainable Agriculture



Utilize non-renewable resources and farm resources as efficiently as possible while incorporating, as necessary, natural biological cycles and controls.

In a "Sustain Summit" hosted by the US Soybean Export Council (USSEC), speakers emphasised the importance of using non-renewable resources, on-farm resources, and integrating, where appropriate, natural biological cycles and controls.

Increased population growth, climate change (drought and floods), declining productivity, low income or poverty, and a

few other issues warrant that the region move beyond awareness of sustainability and implement it both in agriculture and industry. This was the main message of a one-day conference.

The US Department of Agriculture's Lucas Blaustein Regional Agricultural Attaché defined sustainable agriculture as "farming in such a way to protect the environment, aid and expand natural resources, and to make the best use of non-renewable resources."

He claimed that the USDA was working to meet people's needs for food and fibre while enhanc-

ing environmental quality and the natural resources on which the agriculture economy is based.

Utilize non-renewable resources and farm resources as efficiently as possible while incorporating, as necessary, natural biological cycles and controls.

Along with improving the standard of living for farmers and society at large, he added, maintaining the economic viability of farm operations is also important.

Kevin Roepke, Regional Director for South Asia and Sub-Saharan Africa at the USSEC, commented on the Sustain summit's success, saying, "We believe that sustainability is a critical issue that requires collaboration and action from all sectors of society, and the Sustain summit is an important step in promoting sustainable practises and inspiring the much-needed change."

He claimed that Pakistan has also started a program called "Right to Protein" that aims to raise awareness of the nutritional advantages of including protein in the diet...[Read More](#)

## NESPAK Wins Energy Sector Project In Bahrain

Dr. Tahir Masood stated that the energy sector project involved carrying out the annual performance test of the 1500 MW Al-Dur-II Integrated Water and Power Plant.

National Engineering Services Pakistan (NESPAK) has been given a prestigious energy sector project in Bahrain.

According to NESPAK Managing Director Dr. Tahir Masood, who addressed the media on Tuesday, the energy sector project involved carrying out the annual performance test of the 1500 MW Al-Dur-II Integrated Water and Power Plant.

He added that the project's duration was two months, and the client was NOMAC, a significant supplier of operations and maintenance services to the energy sector.

Dr. Masood stressed that this project served as evidence of NESPAK's expertise and capability to provide top-notch engineering consulting services in the power sector.

NESPAK promised to deliver the services on time and to the best quality attainable...[Read More](#)

## Telenor Pakistan Recognizes As Best Workplace Environment For Women

When it comes to promoting gender equality & women's rights in workplace, Telenor Pak is extremely proud of its diversity initiatives, which have helped it become a leader in the field.

The Overseas Investors Chamber of Commerce and Industry (OICCI) Women Empowerment Awards 2022 have recognized Telenor Pakistan as having the "Best Conducive Workplace Environment for Women."

When it comes to promoting gender equality and women's rights in the workplace, Telenor Pakistan is extremely proud of its diversity initiatives, which have helped it become a leader in the field.

Millions of people around the world are impacted by the disparity in the workplace environment, and Telenor Pakistan is committed to making a difference by giving women the tools and resources they need to succeed at work.

Areej Khan, Chief Human Resources Officer, Telenor Pakistan, said, "This award recognizes our organization's efforts in promoting equal opportunities at the workplace. "We at Telenor Pakistan firmly believe that everyone should be given equal employment opportunities in light of the potential for economic growth that results from inclu-



sion and diversity. We're excited to keep working towards our goal of fostering a diverse and inclusive culture where everyone is valued."

The promotion of a diverse and inclusive culture is a priority for Telenor Pakistan. Over 1,000 Pakistani women were trained in digital literacy by Telenor Pakistan as part of the Girls Learn, Women Earn initiative, giving them the skills and knowledge necessary to succeed in the digital economy.

The "NayaAghaaz" initiative from Telenor is a trailblazing platform created to help

women who have taken a career break get back on track professionally.

In addition to the upskilling offered by the program, Telenor Pakistan also offers mental health counselling, mentorships, placement support, flexible work schedules, and the chance to interact with and draw inspiration from other women through its extensive EmpowHer women's empowerment network.

Furthermore, Telenor Pakistan's work on Taleemabad, an online learning program, has dispelled the myth that women lack digital

literacy by educating and empowering 768,000 female students since its inception. Through its Safe Internet Program, the Organization's programme for the protection of children online has upskilled one million kids, 50% of whom are girls.

Telenor Pakistan's dedication to women's emancipation goes beyond the workplace and into the community, where they support programs that advance diversity, education, and gender equality while improving the lives of women and assisting them in realizing their full potential.

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Dr. Shafia Arshad

*Turmeric has also been shown to have anti-inflammatory and antioxidant properties, making it a potentially valuable addition to the diet for those with anemia. Turmeric is a spice that is commonly used in cooking and has many potential health benefits*



## The Kitchen Cabinet's Iron-Rich Spices Are Golden Nuggets For The Treatment Of Anemia

**S**pices are a valuable source of iron and other nutrients for those with anemia and seeking treatment of anemia

Treatment of anemia typically involves increasing the intake of iron-rich foods and, in some cases, using iron supplements. However, several natural remedies, including spices, may be effective in treating anemia.

Anemia is a common condition characterized by a deficiency of red blood cells or hemoglobin in the blood. It can be caused by various factors, including a lack of iron in the diet, blood loss, and certain medical conditions that make it difficult for the body to absorb iron.

Anemia can lead to a range of symptoms, including fatigue, weakness, shortness of breath, and an increased heart rate, and in severe cases, it can lead to more serious complications.

Many spices are rich in iron, a mineral essential for producing red blood cells. In addition to their high iron content, many spices also contain other nutrients that can help to boost the body's iron levels and improve symptoms of anemia.

**Turmeric**  
One spice that has exceptionally high levels of iron is turmeric. This bright yellow spice, com-

monly used in Indian and Middle Eastern cuisine, is a rich source of iron and a range of other nutrients, including vitamin C and manganese.

Turmeric has also been shown to have anti-inflammatory and antioxidant properties, making it a potentially valuable addition to the diet for those with anemia. Turmeric is a spice that is commonly used in cooking and has many potential health benefits.

While it is not a particularly good iron source, it contains small amounts of this essential mineral. One tablespoon (about 6 grams) of turmeric powder contains about 0.3 milligrams of iron, which is about 3% of an adult's daily value of iron.

**Coriander**  
Coriander, also known as cilantro, is a fragrant herb often used in Mexican, Indian, and Thai cooking. It has a slightly citrus flavor and is a good source of iron, with one teaspoon containing 0.9 milligrams of this nutrient. Coriander is also rich in antioxidants and has anti-inflammatory properties. Coriander leaves are often used as a garnish or added to dishes for flavor and aroma.

The coriander plant's seeds, also known as coriander seeds, are often used in spice blends and pickling recipes. To incorporate coriander into the diet, one

can try using it when preparing meals at home. The leaves can be added to salads, wraps, and sandwiches or used as a garnish for soups and stews. The seeds can be ground, added to spice blends, or used to flavor curries, marinades, and other dishes.

**Paprika**  
Paprika is a red spice made from ground chili peppers and is commonly used in Spanish, Hungarian, and Moroccan cuisine. It has a sweet, mild flavor and is a good source of iron, with one teaspoon containing 0.8 milligrams of this nutrient. Paprika is also rich in vitamin C and carotenoids, plant compounds with antioxidant properties.

Paprika is often used to add flavor and color to dishes and is a crucial ingredient in many spice blends. It can be used to season meats, vegetables, soups, and stews and to make the paprika sauce and other condiments. To incorporate paprika into the diet, one can try using it when preparing meals at home. For example, one could sprinkle paprika over roasted vegetables, mix it into a marinade for grilling, or use it to add flavor to soups and stews. One can also try making mustard condiments by mixing ground mustard seeds with vinegar, water, and other seasonings.

In addition to including paprika in the diet, it's also essential

to eat a varied and balanced diet that includes other sources of iron, such as red meat, poultry, fish, beans, nuts, and leafy green vegetables. This will help ensure to get all the nutrients one needs to stay healthy and energized.

**Mustard Seeds**  
Mustard seeds are tiny, round seeds used to make mustard condiments and are also used in Indian and African cuisine. They have a slightly spicy flavor and are a good source of iron, with one teaspoon containing 0.7 milligrams of this nutrient. Mustard seeds are also rich in fiber, protein, and other nutrients.

In addition to their nutritional value, mustard seeds are also commonly used in cooking to add flavor to dishes. They can be used whole or ground and are often used in spice blends, pickles, and marinades. Mustard seeds are also a key ingredient in many mustard condiments, such as yellow and Dijon mustard.

To incorporate mustard seeds into the diet, one can try using them when preparing meals at home.

For example, add mustard seeds to a stir-fry, sprinkle them over roasted vegetables, or mix them into a salad. One can also try making mustard condiments by mixing ground mustard seeds with vinegar, water, and other seasonings.

**Fenugreek**

Fenugreek, commonly known as methi seed, is a spice commonly used in Indian, Egyptian, and Middle Eastern cuisine. It has a slightly bitter, nutty flavor and is often used in dishes such as curries, chutneys, and spice blends. In addition to its culinary uses, fenugreek is also a good source of iron. One teaspoon of fenugreek seeds contains approximately 0.6 milligrams of iron, about 7% of the daily recommended intake for adult men and women.

Fenugreek is also a good source of other nutrients, including fiber, protein, and vitamin C. In addition to consuming fenugreek seeds, fenugreek leaves, can also be a source of iron. One cup of cooked fenugreek leaves contains approximately 3.5 milligrams of iron, about 39% of the daily recommended intake for adult men and women.

Fenugreek leaves are also rich in other nutrients, including vitamins A, K, and calcium. Fenugreek can be used in various dishes to add flavor and nutrition. The seeds can be ground and added to spice blends or used to flavor curries, stews, and other dishes. Fenugreek leaves can be used similarly to other leafy greens, such as spinach or kale, and can be added to soups...[Read More](#)



"The art challenges the technology, and the technology inspires the art."

—John Lasseter  
American film director, producer, screenwriter, animator, voice actor, and the head of animation

*Environmental scientists believe that the burning of crop residues, specifically rice, is a single major cause of smog in the atmosphere. The burning of crop residues also affects the physio-chemical properties of soils. The fertility of soils is compromised during the process of burning because carbon and nitrogen materials are lost from the soils in the form of gasses*



Asia Jan

## Burning Of Rice Stubble Is A Serious Threat To The Environment

**T**he burning of this rice stubble kills the beneficial microbes, which further slows down the process of decomposing organic matter.

The economy of most South Asian countries is based on agriculture and rice is the main crop, contributing the major share. Rice feeds about one-third of the world's population as a major cereal crop and staple food. It is a rich source of starch comprising amylose and amylopectin, which are primary sources of energy. rice stubble

Pakistan is the 10th largest exporter of rice, and its aroma is admired all over the world. In Pakistan, rice represents the Kharif crop, which is sown in July and harvested in November. After the harvest of rice, the paddy is processed to yield the rice, while the straw remains in the fields as a huge bulk of stubble.

Contrary to other crops like wheat, maize, etc., the rice straw is composed of high contents of cellulose and lignin which are resistive to decomposition. So, these rice stubble are difficult to use as organic matter in agricultural soils.

Besides that, these lignin contents cause digestibility problems in cattle, and cattle do not like them as feed. The farmers, on the other hand, want to get

rid of these rice stubble as early as possible to avoid delays in the following crops in their rotation.

Farmers prefer to burn the crop straw in an open field since managing crop straw is expensive, time-consuming, and requires a lot of labor. The burning of these rice stubble generates atmospheric aerosols and gaseous pollutants (i.e., CO<sub>2</sub>, CH<sub>4</sub>, SO<sub>x</sub>, and particulate matter). These gaseous pollutants envelop the atmosphere and



capture and retain UV radiation, which has deteriorating effects on the environment.

These pollutants are also the major source of climatic changes, followed by disasters in the form of irregular rainfalls, floods, climate shifts, extreme weather, etc. In winter, when

the temperature is very low and the humidity is high, these greenhouse pollutants adhere to water droplets and generate smog in the atmosphere.

Smog encompasses a broad category of secondary pollutants due to the presence of volatile carbon compounds, water droplets, NO<sub>x</sub>s, and SO<sub>x</sub>s in the environment. Smog has become a major environmental concern because it not only reduces the visibility of the atmosphere, but also causes

multiple diseases in animals and humans. Common diseases in human beings due to smog include asthma, emphysema, bronchitis, eye irritation, skin conditions, and other illnesses.

Environmental scientists believe that the burning of crop

residues, specifically rice, is a single major cause of smog in the atmosphere. The burning of crop residues also affects the physio-chemical properties of soils. The fertility of soils is compromised during the process of burning because carbon and nitrogen materials are lost from the soils in the form of gasses.

High temperatures of the burning process directly affect the ecology of flora and fauna in the soils. The burning of the rice stubble kills the beneficial microbes, which further slows down the process of decomposition of organic matter. Besides that, some nitrogen-fixing bacteria will also burn in this fire.

In Pakistan, the market value of rice is increasing day by day, which is bringing more agricultural area under rice cultivation. This positive trend toward rice cultivation necessitates addressing the environmental issues associated with the mismanagement of rice stubble.

As environmental scientists, we can devise different management options in collaboration with agriculture scientists and extension staff.

Making the bails and co-digesting rice straw with other straw and waste products like sawdust increased biogas production, which can be used as fuel as a renewable energy, and

as a supplement for gas shortage in winter. We might use rice straw for mulching operations in tunnel farming as it protects the soil by covering it with various materials, which has been shown to increase the soil's health. The Happy Seeder (zero tillage) is a good option for rice farmers since it guarantees timely seeding of the wheat crop. Using a Happy Seeder, farmers may instantly plant seeds after harvesting the paddy field using a combined harvester. However, due to its expensive price and lack of expertise, this equipment isn't utilized very frequently.

Straw burning can be replaced by the efficient breakdown of rice residue, including cellulose and lignin. By retrieving more nutrients and reintroducing them to the soil, the breakdown of rice straw restores the soil's fertility. There, the straw breaks down, primarily aerobically, and at the beginning of the growing season, the compost may be added to the soil as fertilizer.

Thermochemical process with pyrolysis is used to make the biochar from rice straw, which can also be beneficial for contaminated soils as it increases the soil carbon and sequestration levels and improves soil health. Another management method

that increases soil formation and is utilized as fertilizer is composting. Typically, this method is used to handle garbage generated from off-field. Vermi-composting and windrow composting are used.

It is crucial to inform farmers about the financial and environmental benefits of using alternative approaches, and to promote the use of equipment like zero tillage, happy seeders, mulching, and composting of a rice crop to manage crop residue. Additionally, it is important to motivate farmers to employ in-situ management strategies and discourage the outdoor or open-field burning of agricultural wastes.

Legislation and legal implementation should be promoted to help farmers avoid the consequences, and also incentives should be given to the farmers. In order to stop this detrimental practice of rice stubble burning, the government must take a more active role in executing such policies or activities planned or recommended by different government or non-government organizations.

Crop leftovers should be recognized as recycled fertilizers and encouraged by the government for use as fertilizers or amendments. Crop rotation systems that grow paddy rice during the wet season should be acknowledged by farmers.

Another management method



Areesha Aslam

*Appropriateness of Curriculum A uniform system of education for all the citizens should be introduced. Curriculum should be made updated to compete the modern world*



## Flaws In Pakistan's Educational System

Education is really important for every person so they can realize their national duty. The good environment of society is mainly depend on awareness and education is the only way to aware the person about his social rights his national duties and of course education play an important role in economic development because educated people enhances their productivity and efficiency with people. Education also provide people necessary skills so they can play their role to support the sustainability of economic growth of the country.

Now a days, Pakistan is facing many environmental and economical problems due to lack of education and awareness, According to survey the total population of Pakistan is 220.9 million. The current literacy rate of Pakistan is 62.3 which mean that an estimated population of 60 million is illiterate in the country. The main reason of high illiteracy rate in Pakistan is multiple system of education. Our education system is divided into standards like Cambridge system

, English medium, Urdu medium and madrasa system which is the basic reason of social division and social conflicts. Poor examination system examinations are conducted to test the ability of a student and find out his academic learning and knowledge but some students look upon degree just to get an employment in a commercial commodity which can be purchase if you pay a price. Insufficient Budget Allocation The share of public education expenditure in national budget is declined in Pakistan. According to research Pakistan spends less than 2 percent of its GDP on education., Corruption is one of the major contributing factors for failure of educational policy is teachers poorly paid in the best of circumstances, made extra money by tutoring and payment of bribes Lack of research Our curriculum is not updated to compete with the rest of the world in modern education, curricula are not relevant for the needs of the 21st century.

Here are some recommendations for how do improve

our education system:

Appropriateness of Curriculum A uniform system of education for all the citizens should be introduced. Curriculum should be

updated to compete the modern world. Computer education should also be introduced gradually. Proper Religious education should be incorporated in curriculum. Interesting and informa-

tive documentaries and activities should also be design. Jobs on Merit bases: Jobs should be given on merit bases not on personal relations. So the students

Budget, They Also have to give free scholarships to those students who are intelligent and genius who belongs from poor's family. Those students who can't

to improve teacher's selection because the education system is as good as our teachers good. Teaching is not an easy profession as much as it consider in our counter. In our country most of the teacher and professors hired due to their relations with political party.

The research is the key to the solution of many problems and has basic significant in bringing above qualities and improvement in education. High priority should be given to research and development and technology, in order to solve practical problem.

There is no disagreeing the fact that education is the backbone in the development of any nation.

It matures the people mentally, physically, socially and spiritually. The countries that have an effective system of education also happen to be the leaders of the world, both socially and economically. It's our responsibility to work for advancement of our education reforms so that we lie up our self along western countries.



made updated to compete the modern world. Computer education should also be introduced gradually. Proper Religious education should be incorporated in curriculum. Interesting and informa-

will focus on their education not only on his/her degree. We have to think about our nation's future more than our personal interest. Increase in budget: Government have to focus on Educational

afford higher education in that way these bright students will make our nations and country name's bright in future.. Improve Teacher's Selection and Promote Researches: Institutes have



M. JAWAD BASHIR

*T. evansi belongs to the subgenus "Trypanozoon". This particular parasite makes slender which other species of this genus don't actually form*



## Trypanosoma Evansi: A Notorious Blood-Borne Parasite

Trypanosomiasis is a disease of great economic importance in camels and other livestock. It causes severe economic losses. Trypanosoma evansi is considered a notorious blood-borne parasite that is responsible for this disease in camels.

Camels belong to camelidae family and are even-toed ungulates. Camels are mostly reared for drought purposes, but they serve humans with meat and milk in many areas of the world. They are friendly and gentle creatures. By natural default, camels have adaptations to survive in the harsh and dry environment with low water availability, such as deserts.

Just like humans, there are various diseases which affect the well-being and overall performance of camels. The diseases can be of different types such as infectious, metabolic, nutritional etc.

Here, we will discuss a parasitic disease "Trypanosomiasis" in camels and related facts and figures under the light of scientific literature.

What is Trypanosomiasis?

This is a parasitic disease that is caused by a hemoflagellate parasite (blood-borne) that is transmitted to the host with the help of a vector fly.

Epidemiological aspect:

Many hundred years ago, Trypanosoma was first discovered in India by Evans. This protozoan parasite was identified in various animals' species

including horses, camels and mules. That time, this disease was locally termed as "Surra".

After that, this disease was widely discovered in Africa, America and other pockets of the world. This has been observed that dromedary camels are more susceptible to this disease as compared to other camels.

Causative agent:

There are many species of Trypanosoma which have been reported so far. In camels, Trypanosoma evansi causes this disease.

Vector:

This protozoan parasite transmits from one camel to another camel via a blood sucking (hematophagous) fly. This has been scientifically documented that Tabanids (horsefly) are the major vectors which transmit T. evansi to the host animals.

Additionally, other flies such as Lyperosia and Stomoxys species are also involved in the transmission of this parasite.

Replication:

Vectors feed on an infected camel and T. evansi get attached with the mouth-parts of the fly and subsequently the fly transmits it to another healthy animal. After getting entry into the healthy camel, this parasite replicates and manifestation of clinical signs and symptoms occurs.

However, severe clinical infestation has been reported in camels by this disease. But many veterinary scientists state that camels often carry this parasite and usually don't show clinical signs and symptoms

(Asymptomatic reservoirs).

Differentiation of Trypanosoma evansi from other related species:

T. evansi belongs to the subgenus "Trypanozoon". This particular parasite makes slender which other species of this genus don't actually form. Moreover, this species is not limited to the bloodstream of the host. T. evansi crosses the blood-brain barrier and enters in joint fluids, other body fluids



and compartments.

Trypanosoma evansi usually becomes hard to distinguish from T. brucei. There is a technique named "Isoenzyme electrophoresis". This molecular technique helps in differentiation of the both species.

Clinical manifestation:

Trypanosomiasis attacks the camels at any age (camels of all ages are susceptible). However, this has been observed that a high incidence of this infection prevails in juvenile camels after weaning.

There are a variety of signs and symptoms which infected camel shows. Here, we have summarized some key signs and symptoms:

- 1) Reduction in the body weight
- 2) Rough and dry body coat
- 3) Odema (accumulation of fluid) may occur in feet, eyelids, brisket and other areas of the body.
- 4) Fever with shivering. \*Fluctuating fever is usually seen and can reach upto 41 °C
- 5) Loss of appetite (Anorexia) along with mild diarrhea.
- 6) Lacrimation (watery/teary eyes) may be seen.

- 7) Camels become anemic progressively.
- 8) Pale mucous membranes due to anemia.
- 9) Characteristic smell/odor in the camel's urine due to ketone bodies.
- 10) Abortion in pregnant female camels.

Death of infected newborn usually occurs within two weeks of age. However, reduction in milk production of nursing/lactating female camels along with abnormal lesions in the central nervous systems usually observed as sequela. Generally, this disease affects the overall productivity, performance and weight gain of a camel herd.

Mortality:

In severe waves of infection, mortality can reach up to 20%. But it depends upon other factors as well, such as:

- 1) Immune status of camel herd
- 2) Presence of other infection
- 3) Nutritional status
- 4) Stress
- 5) Age

Diagnosis:

There are various diagnostic tools which help in the better diagnosis of this disease. However, in field conditions, where there are no laboratory facilities, diagnosis is made on the basis of thorough clinical examination along with related signs.

Direct methods:

These methods include microscopy, Thick and thin blood smears, fresh lymph smears, thin lymph smears. Other methods include the direct inoculation of camel's blood in the lab animals such as rodents, which just give the idea about the subclinical infection.

Other concentration based methods include Hematocrit centrifuge technique (HCT), buff coat technique and miniature ion-exchange centrifugation technique.

Indirect methods:

Mercuric chloride test and formal gel tests. These tests basically detect the high globulins levels in the infected camel's serum. Remember, these tests are non-specific and high globulin levels are one of the major indicators of trypanosomiasis.

Molecular techniques:

DNA extraction and polymerase chain reaction (PCR) also show good results in diagnosis of the T. evansi.

Serological methods:

Best serological techniques include ELISA-T. evansi (Enzyme-linked immunosorbent assay T.evansi) with special use of a manufactured protein A-Peroxidase coagulate, passive haemagglutination test, capillary agglutination test, immunofluorescent antibody test and Card agglutination test (CAT).

This has been documented that ELISA-T gives the 90-95% specificity and sensitivity in the camels. Overall, these techniques give nice outcomes in detection of T. evansi in camels.

Treatment & prevention:

Two drugs which are usually recommended to treat trypanosomiasis are Quinapyramine and Suramin. But T. evansi has developed resistance against these drugs. To cope up with this drug resistance, Isometamidium is widely used to treat trypanosomiasis in camels.

Important note:

This is always recommended to consult a registered veterinary physician. S/he will suggest a better treatment protocol on the basis of the current health status of the camel. Don't use any drug without the instruction/ prescription of a registered veterinary physician.

Prevention includes the effective control of vector flies and separation of the infected camel from the healthy ones..Read More



## Malaysia Experiences 84mln Cyber Attacks Daily In 4Q 2022: Fortinet

FortiGuard Labs reports that Malaysia experienced 84 million cyberattacks daily on average during the fourth quarter of last year (4Q 2022).

Global cybersecurity solutions provider Fortinet stated that throughout the fourth quarter of 2022, there were 7.5 billion exploit detections, 61.1 million virus detections, and 50.2 million botnet attacks related to cyber threats in Malaysia.

FortiGuard Labs reports that Malaysia experienced 84 million cyberattacks daily on average during the fourth quarter of last year (4Q 2022).

Viruses, botnets, and exploits were used in the attacks, according to Peerapong Jongvibool, vice president of

Fortinet Southeast Asia and Hong Kong, making the nation one of the most exposed places in the region. In contrast, FortiGuard Labs estimates that there were roughly 200 billion cyber threats in Malaysia per day in the fourth quarter of 2022.

In a recent exclusive interview, he said, "Fortinet was able to detect the threats and neutralize them with our Artificial Intelligence (AI) technology and machine learning capabilities. According to Jongvibool, exploits have recently been used by online criminals to infect targets' devices with malware while they wait for the ideal moment to launch an attack.

As more people adopt digitalization in their daily business, increasing their exposure, the trend of cyber attacks is unquestionably increasing every day. In essence, he said, "AI is no longer used for fun but for serious business, so the attackers are now smarter and more weaponized in their planning."

According to Jongvibool, the complexity of the digital environment, where applications are distributed and users can work from any location, there are more devices attached to applications, and there is a shortage of cybersecurity professionals, are the main challenges facing the cybersecurity industry today.

He emphasised the significant accomplishment and improvement over the previous year that Fortinet has made in becoming the provider of almost half of all firewall deployments globally.

"From a global perspective, we are able to show very detailed data on new techniques adopted by the attackers and how they plan their attack, along with what kind of malware or exploit they are using right now," he added. "Last year we only talked about one-third of the entire firewall deployments in the world belonging to us, now we are almost hitting the 50% mark and we are able to detect more cyber attacks in the market..."[Read More](#)

## Plans To Build Spaceport In Sabah May Yield High Revenue



If this proposal is given a second chance and becomes a reality, Sabah might be the next launch site for spacecraft and act as spaceport.

The Federal Government had made plans to build a spaceport and launch satellites for other countries as well as Malaysia's Maesat during the Mahathir administration and these plans could have generated a lot of money for Sabah.

If this proposal is given a second chance and becomes a reality, Sabah might be the next launch site for spacecraft and act as spaceport. A letter of intent was signed between the State Science, Technology and Innovation Ministry (KSTI) and Sovereign Sengalang Sdn Bhd regarding the project, which is known as the Sabah International Space Launch Industrial Centre (SLIC).

The Daily Express reported at the time that Tawau had been chosen as the best location due to its proximity to the equator, which facilitates easier trajectory, as well as the fact that the area is surrounded by water and is not on a major shipping route.

However, because the State administration was then in the opposition, there was no follow-up. The 1.5-year feasibility study, according to KSTI Minister Datuk Dr Mohd Arifin Mohd Arif, will consider security and environmental implications.

"KSTI will go down in the annals of national history. A company called the Sabah Space Industrial Corporation will soon be established. To carry out initiatives to develop the aerospace sector in Sabah, the agency will collaborate closely with the Malaysian Space Agency (MYSA). The State Cabinet has given its approval to the proposal, he said.

According to Dr. Mohd Arifin, the completion of SLIC will create more than 90 high-paying job opportunities and about 5,000 jobs overall, as well as propel the growth of 500 downstream aerospace companies.

"MYSA and I have already had several conversations. "This initiative to build a spaceport and launch satellites..."[Read More](#)

## Drone Industry Of Malaysia Ranks 21st In Drone Readiness Index



In order to advance the drone industry in Malaysia, MRANTI, the coordinating agency and secretariat for MDTAP30, also introduced Area57, a centre of excellence, in 2021.

The Drone Readiness Index (DRI) places Malaysia at number 21, up from number 30 last year, and the country's drone industry is flourishing.

It also holds the top spot in the Index for Southeast Asia. The nation's overall drone readiness increased by 29 percentage points, from 31% to 60%, according to the DRI.

According To CEO of Malaysian Research Accelerator for Technology and Innovation Dzulieira Abu Bakar, "Our achievement in the DRI is an early outcome of the Malaysia Drone Technology Action Plan 2022 - 2030 (MDTAP30) and other initiatives which involve strong collaboration by multiple agencies and stakeholders" (MRANTI).

She thanked the National Disaster Relief Management Agency (NADMA), the Department of Survey and Mapping (JUPEM)...[Read More](#)

## Malaysia & Germany To Cooperate On Environmental Issues: PM Anwar

Anwar also hoped that Steinmeier's visit to Kuching, Sarawak tomorrow would provide opportunities for the latter to see how committed Malaysia is in protecting its rainforest.

Prime Minister Datuk Seri Anwar Ibrahim stated that Malaysia looks forward to cooperating with Germany related to issues of biodiversity, ecology, and climate change.

He claimed that German President Frank-Walter Steinmeier, who has been in Malaysia for three days as part of a state visit, expressed interest in the projects and



expressed the hope that they would attract more investors to the nation.

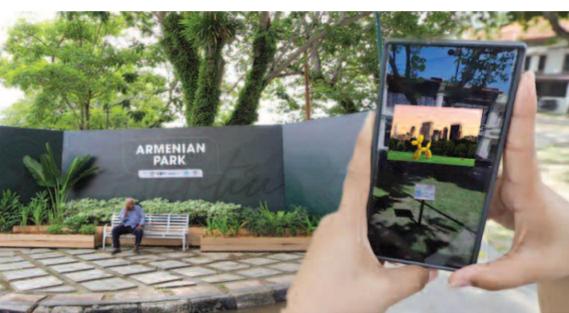
In a press conference held at Perdana Putra in this city with Steinmeier, he said, "We can start this cooperation on issues of biodiversity, ecology, and climate change by focusing first on the energy sector and waste management."

Anwar also hoped that Steinmeier's visit to Kuching, Sarawak tomorrow would provide opportunities for the latter to see how committed Malaysia is in protecting its rainforest.

"In the environment (nature) that he will be in, he will hopefully see how much Malaysia is committed to protecting the rainforest. He will also be able to exchange views with experts in Sarawak," he said.

Steinmeier is scheduled to visit Kuching Wetlands National Park and Semenggoh Wildlife Centre tomorrow before returning to Berlin the same day. Meanwhile, Steinmeier hopes that Malaysia and Germany would intensify the bilateral relationship and share commitment in combating climate change....[Read More](#)

## Launch Of AR Platform In Penang Brings Armenian Park To Life



Visitors to the park will have a distinctive interactive experience thanks to the Armenian Park project, an AR interactive outdoor art installation.

A new augmented reality (AR) platform that was launched in Penang has brought Armenian Park to life. The "Armenian Park" project, according to Yeoh

Soon Hin, chairman of the State Tourism and Creative Economy Committee, consists of 19 trackable images of batik artworks from Mandy Maung's Orikata Tales collection.

Visitors to the park will have a distinctive interactive experience thanks to the Armenian Park project, an AR interactive outdoor art installation.

"We can enhance the visitor experience and add value to the destination by incorporating AR art in Armenian Park," he told the media at the recent Armenian Park launching ceremony. Armenian Street is one of Penang's best-known tourist destinations...[Read More](#)

## Verdant Solar Hopeful About Adoption Of Solar Technology In Malaysia



Zeth Lim, chief executive officer of Verdant Solar, stated that lowering the cost of the solar panels and providing an easy adoption process would increase their uptake.

Verdant Solar, a local player, is optimistic about adoption of solar technology in Malaysia. The business, which was recently recognized by the Malaysia Book of Records for having installed the most photovoltaic (PV) system homes in a year, declared its commitment to assisting in the creation of sustainable towns and cities to mit-

igate the effects of climate change.

Wang Woei Sheng, project business development manager at Verdant Solar, stated that the company hoped to support a sustainable future through its solar solutions, but that they would require more support to persuade more people to adopt such a solution.

"There is no doubt that we need the assistance from government of Malaysia in creating more supportive policies for citizens to use solar technology. We are working...[Read More](#)

## Need Of Sustainable Water Management To Achieve SDGs: Dr. Teo

ICWES 2022 organized by the University of Nottingham Malaysia, highlighted the need for an interdisciplinary approach to address water-related issues.

In order to help the nation address issues related to water security, drought resilience, water and environmental pollution, and flood resilience, Dr. Teo Fang Yenn Associate Professor, University of Nottingham Malaysia emphasizes the need for sustainable management of water and the environment.

"Malaysia is not immune to the effects of water on either end of the spectrum: water scarcity on the one hand, and water surplus on the other", Dr Teo Fang Yenn stated in a letter.

The 1st International Conference on Water and Environment for Sustainability (ICWES 2022), organized by the University of Nottingham Malaysia, highlighted the need for an interdisciplinary approach to address water-related issues.

Engaging experts from different backgrounds in water and environmental-related academia, research institutions, indus-

try players, engineers, non-government organisations, policy-makers, and government agencies is the best way to integrate scientific knowledge with management approaches, social sciences, and engineering solutions.

The ICWES 2022 saw the power of multidisciplinary engagement to create viable solutions to water-related issues, such as coastal reservoirs as a sustainable solution for water security, bioretention systems as a filtration solution to eliminate suspended solids and other water-bound contaminants, and urban storm water reuse. Malaysia's progress in providing water-related solutions is prom-

ising with this engagement.

The Department of Drainage and Irrigation estimates that there are 150 river systems in Peninsular Malaysia and 50 in Sabah and Sarawak, which play a major role in shaping and influencing the development of the nation. This calls for greater care of Malaysia's river basins as a water resource.

The establishment of an institutional framework for the integrated management of water resources depends on the National Water Resources Law (NWRL). It will make it easier to adopt an Integrated River Basin Management system by bridging gaps and addressing fragmented, redundant...[Read More](#)

