

# Abhimanu

Weekly current affairs Series

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**Week: I, September 2018**

**Abhimanu's IAS Study Group**  
Chandigarh

## NATIONAL ECONOMIC AFFAIRS

### Ombudsman scheme

- The Reserve Bank of India (RBI) has directed banks with over 10 outlets to appoint an internal ombudsman to enhance their complaint redressal mechanism.
- All Scheduled Commercial Banks in India having more than ten banking outlets (excluding Regional Rural Banks), are required to appoint Internal Ombudsman (IO) in their banks.
- The IO shall, inter alia, examine customer complaints which are in the nature of deficiency in service on the part of the bank.
- In May 2015, the central bank had advised all public sector and select private and foreign banks to appoint Internal Ombudsman (IO) as an independent authority to review complaints that were partially or wholly rejected by the respective banks.
- As the banks shall internally escalate all complaints, which are not fully redressed to their respective IOs before conveying the final decision to the complainant, the customers of banks need not approach the IO directly.

#### What is Ombudsman Scheme?

- Banking Ombudsman Scheme is a mechanism created by the RBI to address the complaints raised by bank customers. It is run by the RBI directly to ensure customer protection in the banking industry.
- The Scheme enables an expeditious and inexpensive forum to bank customers for resolution of complaints relating to certain services rendered by banks.
- The Banking Ombudsman Scheme was introduced under Section 35 A of the Banking Regulation Act, 1949 by RBI with effect from 1995. The present Ombudsman scheme was introduced in 2006.
- The Banking Ombudsman is a senior official appointed by the Reserve Bank of India. He has the responsibility to redress customer complaints against deficiency in certain banking services. At present fifteen Ombudsmen were appointed by the RBI to settle complaints and they are appointed in state capitals.
- All Scheduled Commercial Banks, Regional Rural Banks and Scheduled Primary Co-operative Banks are covered under the Scheme.
- The Banking Ombudsman can receive and consider any complaint relating to a number of deficiencies related to banking operations including internet banking. RBI has mentioned a large number of service deficiencies by banks to customers where the customers can approach the Ombudsman through a complaint.

### Public Credit Registry

- Recently, RBI Deputy Governor Viral Acharya made a case for setting up a Public Credit Registry (PCR), incorporating unique identifiers: Aadhaar for individual borrowers and Corporate Identification Number for firms.

#### What is PCR?

- A public credit registry is an information repository that collates all loan information of individuals and corporate borrowers. A credit repository helps banks distinguish between a bad and a good borrower and accordingly offer attractive interest rates to good borrowers and higher interest rates to bad borrowers.

- The move is based on the recommendations of a committee, headed by Y.M. Deosthalee. PCR will address issues such as information asymmetry, improve access to credit and strengthen the credit culture among consumers. It can also address the bad loan problem staring at banks, as corporate debtors will not be able to borrow across banks without disclosing existing debt. A PCR may also help raise India's rank in the global ease of doing business index.
- Setting up the PCR will help improve India's rankings in the World Bank's ease of doing business index.

#### **Analysis:**

- Credit information is now available across multiple systems in bits and pieces and not in one window.
- Data on borrowings from banks, non-banking financial companies, corporate bonds or debentures from the market, external commercial borrowings (ECBs), foreign currency convertible bonds(FCCBs), masala bonds, and inter-corporate borrowings are not available in one data repository.
- PCR will help capture all relevant information about a borrower, across different borrowing products in one place.
- It can flag early warnings on asset quality by tracking performance on other credits.
- Access to credit information, including debt details and repayment history would drive innovation in lending. For example, currently most banks focus on large companies for loans and consequently the micro, small and medium enterprises are left with limited options for borrowing. With satisfactory payment history and validated debt details made available, it will increase the credit availability to micro, small and medium enterprises along with deepening of the financial markets. This will support the policy of financial inclusion.

## **Atal Pension Yojana indefinitely extended**

- Union Cabinet decided to indefinitely extended Atal Pension Scheme, which had lapsed in August 2018.
- It also has broadened its scope by keeping it open-ended. The extension was given by taking into consideration of mass participation.

#### **New changes:**

- To further incentivize people's participation in the scheme, age criterion for participation has been revised. Earlier, people of age 18 to 60 years were entitled to enroll in this scheme. But now it has been relaxed further to 65 years, taking into consideration rise in average age-expectancy,
- Also, now the scheme will expand its focus to target individuals, instead of households. Besides, all accounts opened after August 2018 will have accident insurance limit of Rs 2 lakh, double than earlier Rs 1 lakh limit. The overdraft facility of the scheme has also been increased from Rs 5,000 to Rs 10,000.

#### **About Atal Pension Yojana (APY):**

- This scheme was launched in May 2015. This scheme is administered by the PFRDA, and implemented through all the banks nationwide.
- It is a pension scheme for unorganised sector workers such as personal maids, drivers, gardeners etc, was launched in June 2015 by the government.
- This social security scheme was introduced as a replacement to previous government's Swavalamban Yojana NPS Lite, which wasn't well accepted by people.
- APY aims to help these workers save money for their old age while they are working and guarantees returns post retirement.
- The scheme also promises a co-contribution by Central Government of 50% of the total prescribed contribution by a worker, up to Rs. 1000 per annum, but only to those who joined APY before 31.12.2015. Further, this co-contribution would be made only for 5 years, from FY 2015-16 to 2019-20 in the eligible cases subject to conditions mentioned below.
- APY is a periodic contribution based pension plan and promises a fixed pension of Rs 1000/ Rs 2000/ Rs 3000/ Rs 4000 or Rs 5000.

### Inland Waterways Authority of India (IWAI)

- Inland Waterways Authority of India (IWAI) has made public 13 standardised state-of-the-art ship designs suitable for large barge haulage on river Ganga (National Waterway-1).
- This marks attaining of a critical milestone in the growth of the country's Inland Water Transport (IWT) sector as it will help overcome the unique navigation challenges river Ganga throws due to its complex river morphology, hydraulics, acute bends, shifting channels, meanders and current.
- It will serve as an enabler for domestic shipbuilding industry working on inland vessels and open huge possibilities for cargo and passenger movement on National Waterway-1.
- The Government is implementing Jal Marg Vikas Project (JMVP) for capacity augmentation of navigation on NW-1 (Varanasi-Haldia stretch) at a cost of Rs 5369.18 crore with the technical assistance and investment support of the World Bank.
- Even as the work on JMVP is going on in full steam, the specially designed vessels will navigate on low drafts with high carrying capacity and at the same time, environment friendly. For the shipbuilding industry, the new designs will translate into a savings of Rs 30-50 lakhs in the building of a vessel.

#### About Jal Marg Vikas Project:

- Jal Marg Vikas project (JMVP) is a National Waterways development project announced during the budget 2015-16 by the Government of India for national integration and to make the most of navigational challenges to bring prosperity to the country.
- It is a non- water consumptive transport project formulated with the aim of reducing rail & road congestion, reducing the carbon footprint and minimal resource depletion.
- Inland Waterways Authority of India (IWAI) – the apex statutory body created in 1986 for the development and regulation of inland waterways has been designated as the Project Implementing Agency by the ministry of shipping.

#### Phase 1 of JMVP:

- The Jal Marg Vikas Project (JMVP) on NW-1 is being implemented with the financial and technical support of the World Bank. The Project entails development of fairway with 3 meters depth between Varanasi and Haldia (Phase-I) covering a distance of 1380 km at an estimated cost of Rs. 5369 crore with target for completion in six years. The following sub-projects of this Project have commenced:
- Construction of Phase – I (A) of the multimodal terminal at Varanasi at a cost of Rs. 169.70 crore.
- Construction of Phase – I of the multimodal terminal at Sahibganj at a cost of Rs. 280.90 crore.
- Construction of new navigation lock at Farakka at a cost of Rs. 359.19 crore.

### NGT puts curbs on Western ghats States

- The six Western Ghats States, including Kerala, have been restrained by the National Green Tribunal (NGT) from giving environmental clearance to activities that may adversely impact the eco-sensitive areas of the mountain ranges.
- The panel directed that the extent of Eco-Sensitive Zones of Western Ghats, which was notified by the Central government earlier, should not be reduced in view of the recent floods in Kerala.

#### Importance of Western Ghats:

- Western Ghats are an important geological landform of peninsular India. It is the origin of Godavari, Krishna, Kaveri and a myriad of rivers which are life line for the people of southern India.

- On its ecological health depends livelihoods of millions of people belonging to the six Western Ghats states of Gujarat, Maharashtra, Goa, Karnataka, Tamil Nadu and Kerala.
- Western Ghats is one of the identified hotspots of biological diversity globally and is a treasure trove of biological diversity. Western Ghats harbour many endemic species of flowering plants, endemic fishes, amphibians, reptiles, birds, mammals and invertebrates.
- It is also notable center of evolution of economically important domesticated plant species such as pepper, cardamom, cinnamon, mango and jackfruit. The forests harboured by the Western Ghats play a significant and important ecological function in sequestration of atmospheric CO<sub>2</sub> and hence have an important role in climate change.
- Western Ghats have many unique habitats which are home to a variety of endemic species of flora and fauna. The lower elevations of the southern Western Ghats harbour remarkable relic habitat termed as Myristica swamps. Myristica swamps are the only remaining habitat for Myristicaceae which is one of the most primitive plant family among the flowering plants. Apart from southern Western ghats, these swamps are reported from New Guinea, Venezuela and Amazon basin only. Similarly, the flat-topped lateritic plateaus of northern Western ghats harbour unique and rich endemic herbaceous flora which comes to bloom in the post-monsoon season.
- Southern Western Ghats feature a unique tropical vegetation type, viz. stunted montane evergreen forests interspersed with grasslands – the shola vegetation. Approximately 80 % of all endemic frog species are restricted to evergreen forests of Western Ghats. The wetland and aquatic habitats of Western Ghats are also unique in terms the rich diversity of species they support.

## 100 years of Battle of Haifa

- The northern Israeli coastal city of Haifa, on September 6th, celebrated the centenary year of its liberation from Ottoman rule during World War I, honouring the brave Indian soldiers who laid down their lives in what is considered “the last great cavalry campaign in history”.

### History and significance of Haifa war and its Indian Cemetery:

- Owing to its rail and harbour, Israeli port city of Haifa was a strategic supply base. In addition to Haifa, the Allied Forces also engineered a plan to annexe Nazareth and Damascus in present-day Israel and Syria.
- On September 23, 1918, the 15th (Imperial Service) Cavalry Brigade comprising lancers from the regiments of princely states of Jodhpur and Mysore inflicted heavy assault on positions held by Ottoman Turks in and around the city of Haifa. Eventually, the Indian cavalry brigades fighting under the leadership of British General Edmund Allenby helped liberate Haifa from the clutches of the Turkish-German forces.
- The victory was even more special as the Indian soldiers were armed only with lances (a kind of spear) and swords while the Turks had in their possession advance artillery and machine guns. The Indian troops displayed exemplary cavalry skills and valour during what was considered to be the last major cavalry campaign in military history.

## Mobilise Your City (MYC) programme

- India and France have signed an implementation agreement on “MOBILISE YOUR CITY” (MYC) programme.
- Based on a proposal made by AFD in 2015, the European Union has agreed to provide funds of Euro 3.5 million through the AFD to contribute to specific investments and technical assistance components within the Mobilise Your City (MYC) programme in India.

### About Mobilise Your City (MYC):

- Mobilise Your City (MYC) is part of an international initiative which is supported by the French and the German Governments and was launched at 21st Conference of Parties (COP21) meeting in December, 2015.
- Based on a proposal made by AFD in 2015, the European Union has agreed to provide funds of Euro 3.5 million through the AFD to contribute to specific investments and technical assistance components within the Mobilise Your City (MYC) programme in India.

- The MYC aims at supporting three pilot cities viz. Nagpur, Kochi and Ahmedabad in their efforts to reduce their Green House Gas (GHG) emissions related to urban transport by implementing urban mobility plans at local level and to help India at national level to improve their sustainable transport policy.
- The three pilot cities selected under the programme as well as MoHUA will benefit from the Technical Assistance activities.

#### The main components of the proposed assistance are:

- to support planning and implementation of sustainable urban transport projects,
- support to strengthening institutional capacity for regulating, steering and planning urban mobility, and
- learning and exchange formats with other cities across India for exchanges on best practices.

## Court Verdict on Section 377

- The Supreme Court (SC) in a landmark judgement scrapped a colonial-era ban on gay sex, that sparked celebrations across India and elsewhere in South Asia, where activists hope to push for similar reform.
- A five-judge bench in the Supreme Court was unanimous in overturning the ban. But the ruling could face a legal challenge from groups that say gay sex erodes traditional values of the country

#### About Section 377:

- Section 377 of the Indian Penal Code criminalises consensual private sexual acts between adults.
- Though the 172nd report of the Law Commission of India recommended the deletion of Section 377, no action was taken.
- The penal provision says “whoever voluntarily has carnal intercourse against the order of nature with any man, woman or animal, shall be punished with imprisonment for life, or with imprisonment of either description for a term which may extend to 10 years, and shall also be liable to fine.”

#### Historical background:

- In 2009, the Delhi High Court read down Section 377 to apply only to non-consensual, penile, non-vaginal sex, and sexual acts by adults with minors.
- In December 2013, a two-judge Bench of the Supreme Court, on appeals filed by private parties, set aside the High Court’s judgment. It upheld the criminalisation of gay sex while virtually denying the LGBTQ community the right to sexuality, sexual orientation and choice of partner. I
- In July 2018, a Constitution Bench, led by Chief Justice Dipak Misra, re-opened the entire issue, saying a section of people could not live in fear of the law which atrophied their rights to choice, privacy and dignity.

#### Why does it matter?

- Section 377 criminalises a section of people for being a sexual minority. A cross-section of the people has approached the Supreme Court against the penal provision. They are not just seeking protection as sexual minorities, but recognition of characteristics inherent in all human beings. They argue that the right to sexuality, sexual autonomy and freedom to choose a sexual partner form the cornerstone of human dignity. Section 377 has a “chilling effect” on the right of equality, liberty, life, dignity and non-discrimination on the ground of sex.

## **India, Pak Agree To Tours On Both Sides Of Indus basin For Power Projects**

- India and Pakistan have agreed to undertake the Indus Waters Treaty mandated tours by their Commissioners in the Indus basin on both sides to resolve issues on the various hydroelectric projects, including the Pakal Dul and Lower Kalnai in Jammu and Kashmir.

### **What is the Indus Water Treaty (IWT)?**

- The six rivers of the Indus basin originate in Tibet and flow across the Himalayan ranges to end in the Arabian sea south of Karachi.
- Preceding partition, it was one common network for both India and Pakistan. However, while partition managed to draw terrestrial borders, the question of how to divide the Indus waters was something that needed to be worked out.
- Since the rivers flowed from India to Pakistan, the latter was unsurprisingly threatened by the prospect of being fed by the former.
- Initially, the issue of water sharing was sorted out by the Inter-Dominion accord of May 4, 1948 that laid out that India would release enough waters to Pakistan in return for annual payments from the latter.
- The problems of this arrangement was soon realised and it was considered necessary to find an alternative solution.
- Eventually, in 1960, the two countries reached a decisive step with the intervention of the World Bank wherein precise details were laid out regarding the way in which the waters would be distributed. T
- he components of the treaty were fairly simple. The three western rivers (Jhelum, Chenab and Indus) were allocated to Pakistan while India was given control over the three eastern rivers (Ravi, Beas and Sutlej). While India could use the western rivers for consumption purpose, restrictions were placed on building of storage systems.
- The treaty states that aside of certain specific cases, no storage and irrigation systems can be built by India on the western rivers.

### **Conflict:**

- From the Indian point of view, the basic dissatisfaction with the treaty arises from the fact that it prevents the country from building any storage systems on the western rivers.
- Even though the treaty lays out that under certain exceptional circumstances storage systems can be built, the complaint raised by India is that Pakistan deliberately stops any such effort due to the political rivalry it shares with India.
- The matter is further aggravated by the fact that the western rivers lie in the disputed region of Jammu and Kashmir, which has been a subject of tussle between the two countries since independence. Since the treaty's conception in 1960, the two countries have been embroiled in conflicts over a number of projects including the Salal hydroelectric project on the Chenab, the Tulbul project, the Kishenganga and Ratle hydroelectric plants.
- While the tense political relations between the two countries have to a large extent resulted in conflicts over the treaty, to a large extent it is the framing of the treaty itself that has led to grievances.
- One can immediately see how differences arise. One party can claim to be in full conformity with the criteria laid down in the treaty, and the other party can say that this is not the case.

## **Draft rules for E Pharmacies**

- Ministry of health and family welfare has issued a draft notification recently on the sale of drugs by E-Pharmacies.
- The notification is about the amendment of Drugs and Cosmetics Rules amendment to enable registration of the e pharmacies and monitoring of their functioning.

## Important highlights:

- The draft proposes the Drug Controller General of India (DCGI) be the sole agency granting approvals to e-pharmacies with a validity of three years. E-pharmacies are currently governed by state drug regulators.
- The DCGI will be regulated under the Drugs and Cosmetics Rules 1945 as well as the Information Technology Act 2000.
- The draft notes e-pharmacies will have to pay Rs 50,000 to renew licenses and the premises from where e-pharmacies operate will be inspected every two years.
- The e-pharmacies are allowed to sell the medicines only against a prescription, a copy of which they will have to maintain.
- The draft also stated the e-pharmacies will be mandated to conduct the sale of medicines through premises with valid retail licences and retain records of e-prescriptions of patients.
- The e-pharmacies will be prohibited from selling medicines specified under the categories of the Narcotic and Psychotropic as referred to in the Narcotic Drugs and Psychotropic Substances Act, 1985 and Schedule X drugs.
- In case of a suspicion of the drugs being sub-standard or spurious, the buyer can make complaints to the State Drugs Controller and seek relief under the Consumer Protection Act, 1986. The rules are open for public comments for 45 days.
- The firms conducting the e-pharmacy business should keep the data on local servers.
- E-pharmacies have to maintain and update information related to types and quantities of medicines, supply channels or vendor lists on their portals on a constant basis.
- The onus will be on e-pharmacies to safeguard the data of patients from misuse and they shall not divulge the patient data to a third-party, except to the central licensing authority for public health purposes only.
- For rule violation, e-pharmacies could face stringent penalties. Any violation of rules will lead to suspension or cancellation of licenses after providing a reasonable opportunity of being heard.

## Analysis:

- There are around 282 e-pharmacy start-ups in India, including some big ones like Netmeds, 1mg, Sasta Sundar, Pharmeasy, and Myrameds, according to data from start-up tracker Tracxn. Of the 282 players, 20 have been funded and the total money raised by the sector is \$165 million.
- Drug sales from e-pharmacies constitute around 5-6 percent of the little over Rs 1 lakh crore Indian pharmaceutical market.
- Despite the dominance of brick and mortar stores in dispensing medicines, the e-pharmacies are growing at high double-digit growth rates.
- Even though the license requirements are expected to be relaxed, the functionality of e-pharmacies will be closely monitored.
- The draft rules gave much needed regulatory clarity to e-pharmacies, and will make healthcare more accessible and affordable.
- Indian user data is already stored in servers within India, and all existing data will be fully migrated to servers in India over time.
- There doesn't appear to be any mention of the e-pharmacy being responsible for legal compliances of the eventual dispenser. In the previous draft this was a clearly discernible concern.
- The dispensation has to eventually be done from a licensed brick-and-mortar location. While the same company could have both a physical and virtual presence, for scale, it is bound to rely on more third-party chemists and locations.

## Spain offers referendum on greater Catalan autonomy

- Spain's prime minister has proposed a referendum on whether Catalonia should be given greater autonomy, in a bid to dampen tensions between Madrid and Barcelona.



- While stopping short of offering the wealthy region a vote on full independence, this proposal will still be seen as an olive branch for many in Catalonia who simply want to see more devolved regional powers.

### Analysis

- Catalonia, with its capital in Barcelona, is an autonomous Spanish region. It has a population of 7.5 million people, comprising roughly 16 per cent of Spain's population. It is among Spain's most prosperous regions, contributing a fifth of the country's 1.1 trillion-euro (\$1.32 trillion) economy
- The regional government runs its own police and exercises significant powers in health and education. However, key areas such as taxes, foreign affairs, defense, ports, airports and trains are in the hands of the central government
- Pro-independence Catalans are unhappy with the limited autonomy the region enjoys. A common argument is that Catalonia contributes far more than it receives from the Spanish government, which is run from Madrid
- According to experts, lack of economic autonomy, especially, has made people angry. Most of Spain's regions pay taxes to the central government and then receive a portion in return to spend on health, education and public infrastructure, with the sole exceptions of the northern Basque Country and its twin region Navarre. These regions collect their own taxes and decide for themselves how to spend the money. Spain's refusal to extend these tax-and-spend privileges to Catalonia has fuelled outrage
- Many Catalans have also long stressed the region's cultural differences from the rest of the country, including its traditions and language, which were suppressed during the 1939-1975 dictatorship of General Francisco Franco
- The current movement for independence gained traction after Spain's Constitutional Court in 2010 struck down parts of a charter that would have recognized Catalonia as a nation within Spain and granted it greater autonomy. Since the court's ruling, hundreds of thousands of Catalan residents have taken to the streets every year on September 11, a Catalan holiday, to demand independence
- Support for secession received a fillip after Spain's harsh austerity measures during the 2008-2013 financial crisis. Many Catalans felt they could do better on their own
- Attempts to resolve the situation through talks have failed due to various reasons. The Spanish PM said he cannot discuss a referendum unless the constitution is changed, and invited Catalonia to work on changing it. The Catalan government, however, says its right to self-determination must be respected first before talks can proceed
- This is not the region's first attempt to hold a vote on the question of independence. While a non-binding referendum in 2014 was blocked by the court, the Catalan government still went ahead and staged an unofficial poll.

## 6<sup>th</sup> East Asia Summit- Economic Ministers' Meeting

- 6th East Asia Summit- Economic Ministers' Meeting (EAS-EMM) was recently held in Singapore.
- The Ministers agreed to the importance of keeping markets open and fair as well as improving transparency and predictability of the business environment.
- The meeting recognized the importance of ongoing work to maximize the opportunities of, and address the challenges presented by, the digital economy and the rise of regional and global value chains, as part of their efforts to promote economic growth and integration in the region.

### About East Asia Summit:

- The East Asia Summit is a unique Leaders-led forum of 18 countries of the Asia-Pacific region formed to further the objectives of regional peace, security and prosperity.
- It has evolved as a forum for strategic dialogue and cooperation on political, security and economic issues of common regional concern and plays an important role in the regional architecture.
- Established in 2005, EAS allows the principal players in the Asia-Pacific region to discuss issues of common interest and concern, in an open and transparent manner, at the highest level.
- The membership of EAS consists of ten ASEAN Member States (i.e. Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Singapore, Thailand, the Philippines and Vietnam), Australia, China, India,

Japan, New Zealand, Republic of Korea, Russian Federation and the USA. EAS is an initiative of ASEAN and is based on the premise of the centrality of ASEAN.

- The concept of an East Asia Grouping was first promoted in 1991 by the then Malaysian Prime Minister, Mahathir bin Mohamad.
- There are six priority areas of regional cooperation within the framework of the EAS. These are – Environment and Energy, Education, Finance, Global Health Issues and Pandemic Diseases, Natural Disaster Management, and ASEAN Connectivity. India endorses regional collaboration in all six priority areas.

## Programme for International Student Assessment (PISA)

- Union Ministry of Human Resource Development (HRD) has officially decided to participate in Programme for International Student Assessment (PISA) after a gap of nine years.
- It will send a team of officers to Paris to negotiate India's terms of participation in PISA 2021.
- India had taken part in Programme for International Student Assessment (PISA) in 2009 and bagged the 72nd rank among 74 participating countries. Then UPA government had boycotted PISA, blaming "out of context" questions for India's dismal performance.

### About the Program for International Student Assessment (PISA):

- The Programme for International Student Assessment (PISA) was commissioned by the Organization for Economic Co-operation and Development (OECD) in the late 1990s as an ongoing, periodic international comparative study of the proficiency in Mathematics, Science and Reading of 15-year-old students.
- PISA is managed and directed cooperatively by the OECD member countries, and in cooperation with a large and increasing number of non-member countries, referred to as partner economies.
- For each assessment one of the three areas (Mathematics, Science and Reading) is chosen as the major domain and it is given greater emphasis.
- PISA is assessing 15-year-old students in school in grade seven or higher. These students are approaching the end of compulsory schooling in most participating countries and school enrolment at this level is close to universal in almost all OECD countries.
- The PISA assessments take a literacy perspective that focuses on the extent to which students can use the knowledge and skills they have learned and practised at school when confronted with situations and challenges for which that knowledge may be relevant.

PISA assesses the extent to which students can use their reading skills to understand and interpret various kinds of written material that they are likely to meet as they negotiate their daily lives; the extent to which students can use their mathematical knowledge and skills to solve various kinds of mathematics-related challenges and problems; and the extent to which students can use their scientific knowledge and skills to understand, interpret and resolve various kinds of scientific situations and challenges.

## SCIENCE AFFAIRS

### Drug-resistant superbug spreading

- A superbug resistant to all known antibiotics that can cause "severe" infections or even death is spreading undetected through hospital wards across the world.

- Researchers has discovered three variants of the multidrug-resistant bug in samples from 10 countries, including strains in Europe that cannot be reliably tamed by any drug currently on the market.
- The bacteria, known as Staphylococcus epidermidis, is related to the better-known and more deadly MRSA.

**About Staphylococcus epidermidis:**

- It's found naturally on human skin and most commonly infects the elderly or patients who have had prosthetic materials implanted, such as catheters and joint replacements.
- It can be deadly, but it's usually in patients who already are very sick in hospital... it can be quite hard to eradicate and the infections can be severe.
- Like any living organism, bacteria have a strong evolutionary drive to survive. So, over time, a select few will mutate in particular ways that make them resistant to antibiotics. Then, when antibiotics are introduced, only the bacteria that can resist that treatment can survive to multiply further, proliferating the line of drug-resistant bugs.

**Analysis:**

- Superbugs are becoming more powerful and widespread than ever. Medical experts are afraid that we're one step away from deadly, untreatable infections, since the mcr-1 E.coli is resistant to that last-resort antibiotic Colistin. Antibiotic-resistance is passed relatively easily from one bacteria to the next, since it is transmitted by way of loose genetic material that most bacteria have in common.
- The World Health Organization (WHO) is afraid of a post-antibiotic world, where loads of bacteria are superbugs. Already, infections like tuberculosis, gonorrhea, and pneumonia are becoming harder to treat with typical antibiotics.