

SHANMUGAM IAS ACADEMY



SEPTEMBER 12, 2018

EXERCISE NOMADIC-ELEPHANT:

Exercise Nomadic Elephant is **an annual, bilateral exercise** is designed to strengthen the partnership **between Indian Army and Mongolian Armed Forces.**

The exercise will see them improve their tactical and technical skills in joint counter insurgency and counter terrorist operations in rural and urban scenario under United Nations mandate.

The Indian contingent is represented by a contingent of **17 PUNJAB Regiment** while the Mongolian contingent is represented by **Unit 084 of the Mongolian Armed Forces.**

Indo-Mongolia joint exercise **Nomadic Elephant-2018**, commenced at Mongolian Armed Forces (MAF) Five Hills Training Area, **Ullanbaatar, Mongolia.**

During the exercise both sides will jointly train, plan and execute **a series of well developed tactical drills for neutralisation of likely threats** that may be encountered in urban warfare scenario.

Exercise Nomadic Elephant-2018 will **contribute immensely in developing mutual understanding & respect for each others military** and also facilitate in tackling the world wide phenomenon of terrorism.

DOORSTEP DELIVERY OF ESSENTIAL GOVERNMENT SERVICES:

The chief minister of New Delhi inaugurated the **Mobile Sahayak initiative** today **that brings government services to your doorstep.**

Assisting with **40 government services, citizens will no longer have to physically go to government offices to verify or submit their documents.**

Instead, a runner or **'Mobile Sahayak'** will swing by your house at a time of your choosing to perform the necessary tasks.

A year ago in November, the Delhi Government announced that they would be launching a program to implement the ‘home delivery of governance’ in collaboration with a private agency.

Today that service, called the ‘Mobile Sahayak’, has gone live and can aid with 40 government services, 35 of which are already online.

The Mobile Sahayak program is **designed by the government in partnership with VFS Global**. Inaugurated today by the city’s chief minister, Arvind Kejriwal, **it’s basically a system that consists of a call center, human capital assisting as sahayaks or helpers, a mobile portal, and biometric devices. It’s not even that expensive - it comes at a nominal fee of Rs.50 for a home visit**

Some services that can be availed through the program are driving licence applications, passport help, caste certificates, income certificates, ration card,

How does it work?

All citizens have to do is **call 1076**, where a call center executive will ask how they can be of assistance.

- In case there’s a document missing, a Mobile Sahayak will be appointed for the service who will go the citizens home to collect the same at a predetermined time.

Whatever is needed, will be fed into the Mobile Sahayak mobile portal and verified through biometric authentication.

- Citizens can pay using cash or if the service is provided online, then payments can be made through the government’s payment gateway.

Citizens can keep tabs on their application through the unique reference ID that the sahayak will share through a receipt via SMS or email. T

- hat means, in case you’ve submitted physical documents, then there will be a record of that on the receipt.

Doorstep delivery of service entails that for some, citizens may never even have to go to the respective government office and for others, it would improve the time efficiency to just one visit.

YUDH ABHYAS 2018:

As part of the ongoing Indo-US defence cooperation, **a joint military training Exercise Yudh Abhyas 2018** is scheduled to be conducted in the **foothills of Himalayas at Chaubattia in Uttarakhand** from 16 September to 29 September 2018.

It will be **14TH edition of exercise in Yudh Abhyas** series which was **started in 2004** under **US Army Pacific Partnership Program**.

The **aim of this exercise will be to enhance interoperability between armies**. It will also **focus on enhancing counter-terror cooperation**.

The joint exercise Yudh Abhyas 2018 will simulate a scenario where both nations will work together in counter insurgency and counter terrorism environment in mountainous terrain under United Nation charter.

- The two week exercise will witness participation of about 350 personnel of the US Army and similar strength of the Indian Army.
- The exercise curriculum is progressively planned where the participants are initially made to get familiar with each other's organizational structure, weapons, equipment, confidence training and tactical drills.
- Subsequently, the training advances to joint tactical exercises wherein the battle drills of both the armies are coherently unleashed.
- The training will culminate with a final validation exercise in which troops of both countries will jointly carry out an operation against terrorists in a fictitious but realistic setting.

Over the years the two countries have decided to progressively increase the scope and content of this joint exercise. **Exercise Yudh Abhyas 2018 will witness a Division Headquarter based Command Post Exercise, an Infantry Battalion carrying out Field Training Exercise and discussions on issues of mutual interest by experts of both countries.**

Both armies have vast experience in active counter insurgency & counter terrorism operations and sharing each other's tactics & drills in such diverse environment is of immense value.

The exercise is a great step for the armies of the two democratic countries to train together and gain together from each other's rich operational experiences. The latest exercise will help further build interoperability between the forces of both the nations.

HIV (PREVENTION AND CONTROL) ACT, 2017:

The Ministry of Health and Family Welfare has issued a notification for bringing the Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome (Prevention and Control) Act, 2017 in force from 10th September, 2018.

The Act, **safeguards the rights of people living with HIV and affected by HIV.**

The provisions of the Act **address HIV-related discrimination**, strengthen the existing programme by bringing in legal accountability, and **establish formal mechanisms for inquiring into complaints and redressing grievances.**

The Act seeks to prevent and control the spread of HIV and AIDS, **prohibits discrimination against persons with HIV and AIDS.**

The Act lists **various grounds** on which discrimination against HIV positive persons and those living with them is prohibited.

These include the denial, termination, discontinuation or unfair treatment with regard to:

- (i) employment,
- (ii) educational establishments,
- (iii) health care services,
- (iv) residing or renting property,
- (v) standing for public or private office, and
- (vi) provision of insurance (unless based on actuarial studies).

The requirement for HIV testing as a pre-requisite for obtaining employment or accessing health care or education is also prohibited.

Every HIV infected or **affected person below the age of 18 years has the right to reside in a shared household** and enjoy the facilities of the household.

The Act also **prohibits any individual from publishing information or advocating feelings of hatred against HIV positive persons** and those living with them.

As per provisions of the Act, **a person between the age of 12 to 18 years who has sufficient maturity in understanding** and managing the affairs of his HIV or AIDS affected family **shall be competent to act as a guardian of another sibling below 18 years** of age to be applicable in the matters relating to admission to educational establishments, operating bank accounts, managing property, care and treatment, amongst others.

As per the provisions of the Act, every person in the care and custody of the state shall have right to HIV prevention, testing, treatment and counseling services.

HUMAN IMMUNE DEFICIENCY VIRUS:

The human immune-deficiency virus (HIV) is a lentivirus (a subgroup of retrovirus) that causes HIV infection and over time acquired immunodeficiency syndrome (AIDS).

HIV infects vital cells in the human immune system, such as helper T cells (specifically CD4+ T cells), macrophages, and dendritic cells.

AIDS is a condition in humans in which progressive failure of the immune system allows life-threatening opportunistic infections and cancers to thrive.

HIV is a retrovirus that occurs as two types: HIV-1 and HIV-2. Both types are transmitted through direct contact with HIV-infected body fluids, such as blood, semen, and vaginal fluids, or from a mother who has HIV to her child during pregnancy, labor and delivery, or breastfeeding (through breast milk).

APSARA –U NUCLEAR REACTOR

Apsara is the **oldest of India's research reactors**.

The reactor was designed by the Bhabha Atomic Research Center (BARC) and built with assistance from the United Kingdom (which also provided the initial fuel supply consisting of 80 percent enriched uranium).

Apsara first went critical on 4 August 1956.

Apsara is a light water swimming pool-type reactor with **a maximum power output of one megawatt thermal (MWt)**.

The reactor burns enriched uranium in the form of aluminum alloyed curved plates.

Fuel for the reactor is supplied under contract from the United Kingdom, provided that the fuel is safeguarded.

The reactor itself is not under International Atomic Energy Agency safeguards.

The Apsara reactor is **utilized for various experiments** including neutron activation analysis, radiation damage studies, forensic research, neutron radiography, and shielding experiments.

The reactor is also used for research and the production of radioisotopes. After nearly half a century of operation, BARC plans to refurbish and modify the aging reactor to test a new indigenous design of a 5-10MWt research reactor.

It was **shut down in 2009 for a revamp**. The research reactor's earlier French made enriched fuel has been replaced with an Indian made enriched fuel.

Nearly sixty-two years after Apsara came into existence, a swimming pool type research reactor “**Apsara-upgraded**”, of higher capacity was born at Trombay on 10th September 2018 at 18:41 hrs.

The reactor, made indigenously, **uses plate type dispersion fuel elements made of Low Enriched Uranium (LEU)**.

By virtue of higher neutron flux, this reactor will increase indigenous production of radio-isotopes for medical application by about fifty percent and would also be extensively used for research in nuclear physics, material science and radiation shielding.

The Apsara reactor was **utilised for various experiments including neutron activation analysis, radiation damage studies, forensic research, neutron radiography, and shielding experiments**.

This development has re-emphasised the capability of Indian scientists and Engineers to build, complex facilities for health care, science education and research.

India has five research reactors that aid India's nuclear energy program. Today the country generates almost 6780 MW of power from 22 operational power reactors.

PROJECT SNOW LEOPARD:

Project Snow Leopard was **launched in 2009** to safeguard and conserve India's unique natural heritage of high-altitude wildlife populations and their habitats by promoting conservation through participatory policies and actions.

Project is operational in Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, and Arunachal Pradesh.

Snow leopard (*Panthera uncial*) is a large cat native to the mountain ranges of Central and South Asia- including Himalayas, and Russia's remote Altai mountains.

The International Union for Conservation of Nature (IUCN) has downgraded conservation status of snow leopard from "endangered" to "**vulnerable**".

The change in status comes 45 years after snow leopard was first declared endangered in 1972.

As of 2016, the global population was estimated at 4,678 to 8,745 mature individuals.

The snow leopard **inhabits alpine and subalpine zones** at elevations from 3,000 to 4,500 m (9,800 to 14,800 ft), ranging from eastern Afghanistan to Mongolia and western China. In the northern range countries, it also occurs at lower elevations.

Threats: It is threatened by poaching for their fur, habitat destruction by infrastructure developments and climate change.

Protection Status: It has been listed in Schedule I under Wildlife (Protection) Act 1972, Appendix I of Convention on International Trade of Endangered species (CITES) and Appendix I Convention on Migratory Species (CMS).

e-VBAB NETWORK PROJECT:

Telecommunications Consultants India Ltd. (TCIL) signed an agreement with Ministry of External Affairs (MEA) for the implementation of e-VBAB (e-VidyaBharati and e-AarogyaBharati) Network Project for a total value of Rs. 865 Crores.

To continue providing Tele Education and Tele Medicine services from elite Indian Universities and Super Specialty Hospitals to African nations using Internet as transmission media,

E-VBAB Network Project is primarily a technological upgrade and extension of the Pan-African e-Network Project (Phase 1) which was implemented in 48 partner countries across Africa from 2009 till 2017.

The Phase 1 of the Project successfully imparted tele-education and tele-medicine by linking educational institutions and hospitals in India with those from the participating African countries.

Over the 5 years project duration, **e-VBAB Network Project will provide free tele-education courses in various academic disciplines to 4000 students every year from African countries.**

The Project will also be utilized for **providing free Continuing Medical Education** (1000 every year) to African doctors/nurses/para-medical staff. Further, Indian doctors, through this project will provide free medical consultancy to those African doctors who seek such consultancy.

In order to operationalise the e-VBAB Network Project, a Data Centre and Disaster Recovery Centre will be established in India along with Learning Centres in various African countries which decide to be part of the Project.

There will be **two separate platforms for e-VidyaBharati (tele-education) and e-AarogyaBharati (tele-medicine)** which will link, through a web-based technology, various educational institutions and hospitals in India and the participating African countries.

The e-VBAB Network Project will be **completely funded by the Government of India for its entire duration and will be open for participation to all our partner countries in Africa.**

The Project will be another important milestone in our development partnership with Africa.

DRAFT NATIONAL FOREST POLICY 2018:

The ministry of environment, forest and climate change has framed a new draft National Forest Policy 2018 in March, 2018. **The new forest policy aims to address the new realities – climate change, human-animal conflict and declining green cover.**

The **features of the draft forest policy 2018** include:

1. It **aims to bring a minimum one-third of India's total geographical area under forest** cover through scientific interventions and enforcing strict rules to protect the dense cover.
2. Unlike the previous policies, which stressed on environmental stability and maintenance of ecological balance, the 2018 policy focuses on the international challenge of climate change.
3. It **proposes public-private participation models for undertaking afforestation and reforestation activities** in degraded forest areas and forest areas available with Forest Development Corporations and outside forests.
4. To address the issues of human-animal conflict it proposes for Quick response, dedicated teams of well equipped and trained personnel, mobility, strong interface with health and veterinary services, rescue centres, objective and speedy assessment of damage and quick payment of relief to the victims would be at the core of the short-term action.
5. Monitoring and management of population of wildlife would be adopted on a long-term basis within and outside forests for maintaining the balance.

6. Safeguard forest land by exercising strict restraint on diversion for non-forestry purposes, and strict oversight on compliance of the conditions.

The policy is criticized for:

- Involving private concerns for afforestation and reforestation activities pointing out that this would mean privatisation of India’s natural resources and creating private forests.
- It doesn’t provide mechanisms on how these objectives will be achieved considering the competitive demands for forestlands.
- The draft policy orients itself more on the conservation and preservation of forest wealth rather than regenerating them through people’s participation.
- The policy does not discuss in detail the contentious issue of diversion of forest land for mining and other purposes.

Although the draft policy mentions the importance of forests in Northeast India, it fails to address the forest diversion issues for projects in the region.

LEPTOSPIROSIS: (RAT FEVER)

Leptospirosis is a **rare bacterial infection** we get from animals.

It’s spread through their urine, especially from dogs, rodents, and farm animals. They may not have any symptoms, but they can be carriers.

In most cases, leptospirosis is unpleasant but not life-threatening, like a case of the flu. It rarely lasts more than a week. But about 10% of the time, when you have a severe form of leptospirosis, you’ll get better, but then get sick again. **This is called Weil’s disease** and it can cause much more serious issues, like chest pain and swollen arms and legs. It often requires hospitalization.

CAUSES:

Leptospirosis is **caused by** a bacterium called **Leptospira interrogans**. The organism is carried by many animals and lives in their kidneys. It ends up in soil and water through their urine.

If you're around soil or water where an infected animal has peed, the germ can invade your body through breaks in your skin, like scratches, open wounds, or dry areas.

What are the signs and symptoms of leptospirosis (rat fever)?

Some people infected with the bacteria may not show symptoms at all. Symptoms of leptospirosis in humans may include the following:

1. High fever
2. Headache
3. Muscle aches
4. Vomiting
5. Diarrhoea
6. Abdominal pain
7. Jaundice
8. Skin rash
9. Red eyes
10. Chills

Rat fever treatment and prevention

Leptospirosis is **often treated with antibiotics, including penicillin and doxycycline**. However, prevention is the key here.

Here are a few things you can do to prevent or reduce your risk of getting leptospirosis.

- Avoid direct contact with contaminated water or soil. Never drink water from any outdoor sources. Ensure that you drink only filtered and boiled water. Also, do not consume food that might have come into contact with infected animals.
- Since leptospirosis can enter the body through openings, it's best to avoid swimming, waterskiing, sailing, or fishing in water that might be contaminated with animal urine, or eliminating contact with potentially infected animals.
- Practice good hygiene, such as washing hands regularly using soap, water, and disinfectant.
- Do not smoke, drink or eat when handling livestock to prevent the introduction of bacteria into the mouth.
- Wear protective clothing and footwear near floodwater or soil that may be contaminated with animal urine.
- Stay away from infected animals, especially rats and other rodents which are the main carriers of the bacteria.
- Take proper care of cuts or wounds - cover them with waterproof bandages or other coverings that are resistant to water.
- Since leptospirosis is difficult to eliminate, taking steps to prevent or minimise the risk of getting the infection is the best strategy to stay safe. After the floodwater receded in Kerala the state is facing spread of infectious diseases, especially leptospirosis, also known as rat fever.

IN KERALA:

The health department has recommended that anybody who has worked in the water during the flood should take the prescribed antibiotic to prevent infection.

With inadequate garbage collection and disposal facilities, Kerala faces infectious disease outbreaks every monsoon. The 2018 floods have made the situation worse.

After the water receded from most of the flood affected areas of Kerala, the state has been facing threat over the outbreak of leptospirosis (rat fever).

According to Kerala Directorate of Health Services (DHS) report 54 people have died of suspected leptospirosis among which 19 deaths were confirmed of this fever by September 3.

Leptospirosis was always a major concern for Kerala

In 2015, 43 people had died of rat fever in Kerala.

In 2016 and 2017 the death toll was 35 and 80 respectively. In 2018, from January to July 31 (before the flood), 28 people died of leptospirosis. More than 1000 cases are reported every year.

Among the communicable diseases in the state rat fever causes highest number of deaths.

FIXED DOSE COMBINATIONS (FDC):

A combination **drug** is a **fixed-dose combination (FDC)** that includes **two or more active pharmaceutical ingredients (APIs)** combined in a **single dosage form**, which is manufactured and distributed in fixed doses.

It is **widely accepted that most drugs should be formulated as single compounds.**

Initially, fixed-dose combination drug products were developed to target a single disease (such as with antiretroviral FDCs used against AIDS).

However, FDCs may also target multiple diseases/conditions.

In cases of FDCs targeting multiple conditions, such conditions might often be related in order to increase the number of prospective patients who might be likely to utilize a given FDC product.

This is because each **FDC product is mass-produced, and thus typically requires having a critical mass of potentially applicable patients in order to justify its manufacture, distribution, stocking, etc.**

FDCs are highly popular in the Indian pharmaceutical market and have been particularly flourishing in the last few years.

ACTIVE PHARMACEUTICAL INGREDIENTS:

The Active Pharmaceutical Ingredient (API) is the part of any drug that produces its effects. Some drugs, such as combination therapies, have multiple active ingredients to treat different symptoms or act in different ways.

- Pharmacokinetics is the study of how an organism affects a drug, when it is given to the organism.
- Pharmacodynamics is the study of the biochemical and physiologic effects of drugs.

The FDCs are justified when they demonstrate clear benefits in terms of

- (a) potentiating the therapeutic efficacy,
- (b) reducing the incidence of adverse effect of drugs,
- (c) having pharmacokinetic advantage
- (d) better compliance by reducing the pill burden,
- (e) reducing dose of individual drugs,
- (f) decreasing development of resistance, and
- (g) cheaper than individual drug because of reduced cost from packaging to distribution.

The Problems with Fixed Dose Combination

The FDCs formulated without due diligence can pose problems namely

- (a) **pharmacodynamic mismatch** between the two components, one drug having additive/antagonistic effect leading to reduced efficacy or enhanced toxicity,
- (b) **pharmacokinetic mismatch** and having peak efficacy at different time,

- (c) **chemical noncompatibility** leading to decreased shelf life,
- (d) drug interactions because of the common metabolizing pathways, and
- (e) limitations of finer dosing titration of individual ingredients.

Although FDCs are available in almost all therapeutic categories, **many of them are bizarre combinations.**

The therapeutic categories having high number of FDCs are cough, cold, and fever preparations; analgesics and muscle relaxants; antimicrobials; drugs for hypertension, dyslipidemia, diabetes, and psychiatric disorders; and vitamins and minerals.

The FDC formulation **may have up to 5 or even more ingredients with or without rationality of their presence and in the quantity.**

Problem of Plenty: Fixed Dose Combinations with Questionable Justifications in India

1. Notwithstanding with the basic principle of formulating FDC, **the Indian medicine market has become the world leader of FDCs.**
2. The estimated number of FDCs in India is over 6000. Time and again, studies, editorials have shown violation of scientific merits in having many **FDCs without adequate justification.**
3. Exploiting the liberal licensing system, many times, bizarre FDCs find place. India today does not have the exact database of currently available FDCs in the market, their sales turnover and use pattern.
4. The **existence of unlimited brands of FDCs with different permutations and combinations leads to confusion** rather than guiding the prescribing doctor.

Due to the difficulties in developing new chemical entities, the pharmaceutical industry finds it easier to develop FDCs. **India is primarily the market of generic drugs.**

As the patent expires, the intense competition among multiple manufacturers tempts them to give the product a new look claiming multiple advantages without scientific validation.

By the Drug Price Control Orders 2013, the drugs included in the NLEM were brought under price control by the National Pharmaceutical Pricing Authority of India. To evade the price control, some companies reformulate the individual drugs into an FDC.

The Ministry of Health and Family Welfare **has prohibited the manufacture for sale, sale or distribution for human use of 328 Fixed Dose Combinations (FDCs)** with immediate effect.

It has also restricted the manufacture, sale or distribution of six FDCs subject to certain conditions.

WORLD FOOD PROGRAMME:

The World Food Programme (WFP) is the **food-assistance branch of the United Nations and the world's largest humanitarian organization addressing hunger and promoting food security.**

According to the WFP, it provides food assistance to an average of 80 million people in 76 countries each year.

From its **headquarters in Rome** and from more than 80 country offices around the world, the WFP works to help people who cannot produce or obtain enough food for themselves and their families.

It is a **member of the United Nations Development Group and part of its Executive Committee.**

WFP was first established in 1961.

Goals and strategies

The WFP strives to eradicate hunger and malnutrition, **with the ultimate goal in mind of eliminating the need for food aid itself.**

The objectives that the WFP hopes to achieve are to:

- "Save lives and protect livelihoods in emergencies"
- "Support food security and nutrition and (re)build livelihoods in fragile settings and following emergencies"
- "Reduce risk and enable people, communities and countries to meet their own food and nutrition needs"
- "Reduce undernutrition and break the intergenerational cycle of hunger"
- "Zero Hunger in 2030"

WFP food aid is **also directed to fight micronutrient deficiencies**, reduce child mortality, improve maternal health, and combat disease, including HIV and AIDS.

Food-for-work programmes help promote environmental and economic stability and agricultural production.

FUNDING:

The WFP operations are **funded by voluntary donations from governments of the world, corporations and private donors.**

The organization's administrative costs are only seven percent—one of the lowest and best among aid agencies.

EMERGENCY RESPONSE CLASSIFICATIONS:

The WFP has a system of classifications known as the Emergency Response Classifications **designated toward situations that require immediate response.**

This response is activated under the following criteria:

- When human suffering in which domestic governments do (or) can not respond to adequately
- The United Nations reputation is under scrutiny
- When there is an obvious need for aid from the WFP

The Emergency Response Classifications are divided as follows, with emergency intensity increasing with each level:

Level 1 – Response is activated. Resources are allocated to prepare for the WFP's local office to respond

Level 2 – A country's resources require regional assistance with an emergency across one or multiple countries/territories

Level 3 – The emergency overpowers the WFP's local offices and requires a global response from the entire WFP organization

Current Level 2 and 3 emergencies

- Colombia/Venezuela (Level 2)
- Iraq (Level 3)
- Nigeria (Level 3)
- South Sudan (Level 3)
- Syria (Level 3)
- Yemen (Level 3)

RECENTLY IN NEWS:

According to a UN report, there has been a rise in the number of people suffering from hunger. The analysis has revealed, **in 2017 around 821 million people were undernourished.**

It was also stated that two per cent of the total global population have had their growth stunted owing to lack of sufficient nutrition.

The author of the report *The State of Food Security and Nutrition in the World* have partly apportioned blame on drastic events like flood and drought.

Another factor that is contributing to the plight is **the difficulty in sourcing nutritious food.** This has also resulted in one in eight adult being identified as obese.