

UPSC Daily Current Affairs | Prelim Bits 16-07-2020

Report on API's

- Active Pharmaceutical Ingredient (API) is a substance or mixture of substances contained in a medicine that is intended to cause pharmacological activity.
- Technology Information, Forecasting and Assessment Council (TIFAC) has recently released a report <u>on 'Active Pharmaceutical Ingredients'.</u>
- The report highlights are as follows
- 1. The pharmaceutical industry in India is third largest in the world, in terms of volume, behind China and Italy, and fourteenth largest in terms of value.
- 2. However due to *availability of cheap imports, the local manufacturing of APIs is very less.*
- 3. Of the total imports of APIs and intermediates into India, China accounts for 65-70%.
- 4. The report has recommended to create mega drug manufacturing clusters with common infrastructure in India.
- Along with the report, a white paper titled <u>'Focused Interventions for Make</u> <u>in India : Post COVID 19' was also released</u>

TIFAC

- Technology Information, Forecasting and Assessment Council was formed as a registered Society in February, 1988.
- It is an *autonomous body under the Department of Science and Technology.*
- It is mandated to assess the state-of-art of technology and set directions for future technological development in India in important socio-economic sectors.

India Energy Modelling Forum (IEMF)

- India Energy Modelling Forum (IEMF) was launched on July 2,2020.
- It was established by the joint working group meeting of the Sustainable

Growth Pillar.

- Sustainable Growth Pillar is an important pillar of <u>India–US Strategic Energy</u> <u>Partnership co-chaired by NITI Aayog and USAID.</u>
- The SG pillar entails energy data management, energy modelling and collaboration on low carbon technologies as three key activities.
- The forum would include knowledge partners, data agencies and concerned government ministries.
- NITI Aayog will initially coordinate the activities of the forum and finalizing its governing structure.

Energy Modelling Forum (EMF)

- The Energy Modelling Forum (EMF) in USA was established in 1976 at Stanford University.
- It was to connect leading modelling experts and decision makers from government, industry, universities, and other research organizations.
- It provides an unbiased platform to discuss the contemporary issues revolving around energy and environment.

Human Growth Hormone (hGH)

- Human Growth Hormone (hGH) is produced in the body and secreted by the *pituitary gland near the base of the brain.*
- HGH helps in bone, organ and cartilage growth and also helps in repairing damaged muscles.
- When the gland releases the growth hormone, <u>it results in the secretion of a</u> <u>protein called IGF-1 from the liver.</u>
- The IGF-1 protein is what ultimately stimulates the growth of bones, muscle, and other tissues.
- hGH is banned both in-competition as well as out-of-competition by the World Anti- Doping Agency (WADA) as <u>hGH is known to increase muscle</u> <u>mass, strength as well as tissue-repairing effects.</u>
- Recently a 2018 Commonwealth Games silver medalist, has been handed a provisional four-year suspension after his blood sample tested positive for human Growth Hormone (hGH).

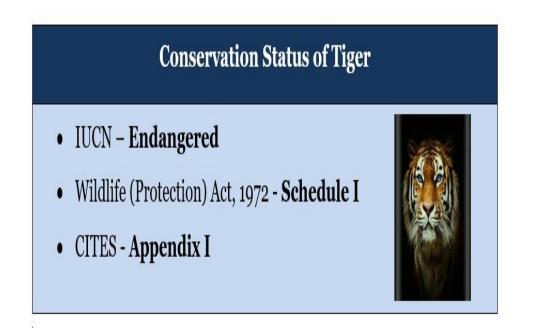
Kris Gopalakrishnan Committee

- A government committee headed by Infosys co-founder Kris Gopalakrishnan has suggested that <u>non-personal data generated in the country be allowed to</u> <u>be harnessed by various domestic companies and entities</u>
- Non-personal data is any set of data <u>which does not contain personally</u> <u>identifiable information.</u>

- This in essence means that no individual or living person can be identified by looking at such data.
- Unlike personal data, which contains explicit information about a person's name, age, gender, sexual orientation, biometrics and other genetic details, *non-personal data is more likely to be in an anonymised form.*
- The committee has also suggested setting up of a new authority which would be empowered to monitor the use and mining of such non-personal data.

KAZI 106F

- 'Kazi 106F', described as the *country's only Golden Tiger*.
- It resides in world heritage Kaziranga National Park of Assam.
- It is also known as 'Tabby tiger' or 'Strawberry tiger'.
- The skin of tigers is orange-yellow with black stripes and whitish abdominal region.
- The yellowish background is controlled by a set of <u>'agouti genes'</u> and their alleles and the black colour stripes are controlled by <u>'tabby genes' and their alleles.</u>
- Suppression of any of these genes may lead to colour variation in tiger.
- Agouti genes interacts with the pigment cells to produce yellow to red or brown to black expression.
- This interaction is responsible for making distinct light and dark bands in the hairs of animals such as the agouti here same is happening in our tigress -Kazi 106 F.



Study on Regional Climatic Features

• Indian Institute of Geomagnetism (IIG) has tracked climate change by following the *Paleomonsoonal pattern of the subcontinent* by harnessing

magnetic mineralogy.

- The magnetic minerals are sensitive to the physical and chemical environment that they are embedded in.
- These external changes bring about modifications in the innate structure of these magnetic minerals, transitioning them from one magnetic phase to another.
- In this process, the magnetic mineralogy also changes. *For example, from* <u>magnetite to hematite and vice versa.</u>
- The mineral magnetic studies have unraveled 4 regional climatic features encompassing the entire Indian subcontinent and one localized climatic event, they are as follows
- 1. <u>Higher monsoon precipitation</u> in the western part of India was shown to be analogous with glacial melt in the Himalayas.
- 2. <u>The weakening of monsoon</u> was inferred in the Himalayas and the hinterland of Arabian Sea, analogically cold and dry conditions were prevalent at Dhakuri (Uttarakhand), which led to the formation of loess deposits.
- 3. <u>The monsoon intensification</u> is deciphered in the western and eastern part of India with major implications in the hinterlands of the Arabian Sea and Bay of Bengal.
- 4. <u>Holocene aridity and weakened monsoon</u> was inferred to be prevalent across the subcontinent (Holocene is the current geological epoch).
- 5. <u>The localized feature of Younger Dryas</u> cooling seems to be confined to just the upper reaches of the Himalaya, <u>Younger Dryas is a period of rapid</u> <u>cooling in the late Pleistocene.</u>

Source: PIB, Indian Express, the Hindu



