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## DAILY CURRENT EVENTS

# MARCH 2017



# INSIGHTS DAILY CURRENT EVENTS MARCH-2017

## Table of Contents

<b>GS I</b>	<b>9</b>
<i>Paper 1 Topic: Indian culture will cover the salient aspects of Art Forms, Literature and Architecture from ancient to modern times.</i>	<i>9</i>
Lakkaram tank regains lost glory	9
PM Modi releases postage stamp on 100 years of Yogoda Satsang Math	10
Reviving Assam's ancient ink	10
Move to get world heritage status for Sankaram	10
Nowruz	11
Hindu New Year	12
<i>Paper 1 Topic: Modern Indian history from about the middle of the eighteenth century until the present- significant events, personalities, issues.</i>	<i>12</i>
Kamaladevi Chattopadhyay National Awards	12
Tipu's armoury finds a new home	13
Titu Mir returns to roil Bengal, 190 years after his fall in war	14
<i>Paper 1 Topic: Salient features of Indian Society, Diversity of India.</i>	<i>14</i>
Revitalising a language	14
<i>Paper 1 Topic: Role of women and women's organization, population and associated issues, poverty and developmental issues, urbanization, their problems and their remedies.</i>	<i>14</i>
Thiruvananthapuram tops city governance ranking	14
Google Street View helps manage urban ecosystem	16
Nari Shakti Puraskars	16
International Women's day 2017	17
Hyderabad best city to live in, beats Delhi, Mumbai for third time	17
With India at 148th in number of women MPs, UN official moots quotas	18
<i>Paper 1 Topic: Effects of globalization on Indian society.</i>	<i>18</i>
A Government Panel recommends legal framework for protection of interests of migrants in the country	18
<i>Paper 1 Topic: Important Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone etc., geographical features and their location- changes in critical geographical features (including water-bodies and ice-caps) and in flora and fauna and the effects of such changes.</i>	<i>19</i>
NIO finds a new canyon system close to Kovvada coast	19
'India's temperature rose by 0.60 degree over last 110 years'	20
<i>Paper 1 Topic: Distribution of key natural resources across the world (including South Asia and the Indian sub-continent); factors responsible for the location of primary, secondary, and tertiary sector industries in various parts of the world (including India).</i>	<i>21</i>
'Significant incidences' of gold found in Uttarakhand	21

<i>Paper 2 Topic: Indian Constitution- historical underpinnings, evolution, features, amendments, significant provisions and basic structure.</i>	23
<b>Fundamental duties: HC seeks Centre's response</b>	23
<i>Paper 2 Topic: Separation of powers between various organs dispute redressal mechanisms and institutions.</i>	23
<b>Indus basin: Punjab and J&amp;K to resume work on Shahpur Kandi dam project</b>	23
<b>Kerala completes work on first check-dam across the Bhavani</b>	24
<b>Supreme Court refuses to stay Manohar Parrikar's oath-taking ceremony</b>	24
<i>Paper 2 Topic: Structure, organization and functioning of the Executive and the Judiciary Ministries and Departments of the Government; pressure groups and formal/informal associations and their role in the Polity.</i>	25
<b>SC to HCs: Don't keep review pleas pending</b>	25
<i>Paper 2 Topic: Appointment to various Constitutional posts, powers, functions and responsibilities of various Constitutional Bodies.</i>	25
<b>CAG to undertake audit of demonetisation fallout</b>	25
<i>Paper 2 Topic: Statutory, regulatory and various quasi-judicial bodies.</i>	26
<b>Nand Kumar Sai assumes charge as Chairman of National Commission for Scheduled Tribes</b>	26
<b>7th National Awards for Technology Innovation in Petrochemicals and Downstream Plastics Processing Industry (2016-17)</b>	27
<b>NGT fixes norms for camping along Ganga</b>	27
<b>Centre to contest tribunal order on military pay</b>	28
<b>Two insolvency professional entities gets IBBI recognition</b>	29
<b>Minorities' panel has no member</b>	30
<b>Narendra Kumar takes over as Chairman Central Water Commission</b>	30
<b>New Chairman of National Commission for Safai Karamcharis</b>	31
<b>NCST Approves Proposal for Five Additional Seats for Tribals in Sikkim Assembly</b>	31
<b>NCLT gives nod for Cairn-Vedanta merger</b>	31
<b>National Commission for Socially and Educationally Backward Classes Gets Approved By Cabinet</b>	32
<b>CCI imposes ₹591 crore penalty on Coal India</b>	32
<b>FSSAI performance comes under CAG scanner</b>	33
<i>Paper 2 Topic: Government policies and interventions for development in various sectors and issues arising out of their design and it.</i>	34
<b>India signs Financing Agreement with World Bank for Tejaswini</b>	34
<b>Projects worth Rs 1050 Crore Awarded to arrest sewage pollution in Ganga from Patna</b>	34
<b>Keeping over 10 old notes to attract fine</b>	35
<b>Supreme Court seeks reply of govt, EC on PIL on convicts fighting polls</b>	35
<b>High level delegation to USA to promote India's new Hydrocarbon Exploration and Licensing Policy (HELP) at CERA Week 2017</b>	36
<b>Maternity Benefit (Amendment) Bill, 2016 passed in the Parliament</b>	37
<b>Another river-linking project on cards</b>	38
<b>Enemy Property Bill Clears Rajya Sabha</b>	38

<b>Admiralty Bill,2016</b>	<b>39</b>
<b>Non-lapsable fund sought for arms buy</b>	<b>40</b>
<b>WCD dept seeks CBI probe into duping in name of ‘Beti Bachao Beti Padhao’ plan</b>	<b>40</b>
<b>Inter-state River Water Disputes (Amendment) Bill, 2017 introduced in Lok Sabha</b>	<b>41</b>
<b>Govt to launch pilot scheme to promote ornamental fishery</b>	<b>42</b>
<b>Mission Fingerling to achieve “Blue Revolution”</b>	<b>42</b>
<b>Launch of Trade Infrastructure for Export Scheme (TIES)</b>	<b>43</b>
<b>National Health Policy 2017</b>	<b>43</b>
<b>HIV patients unhappy with Bill</b>	<b>44</b>
<b>Amendment to ‘The Right of Children to Free and Compulsory Education Act, 2009’</b>	<b>45</b>
<b>Law coming to enforce dam safety regulations</b>	<b>46</b>
<b>Emission Norms: Supreme Court Tells Automobile Firms Not To Delay BS-IV Roll Out</b>	<b>46</b>
<b>Mental Healthcare Bill</b>	<b>47</b>
<b>‘Triple talaq not in SC purview’</b>	<b>48</b>
<b>6 Crore Soil Health Cards Distributed</b>	<b>49</b>
<b>Centre may expand social security net</b>	<b>50</b>
<i>Paper 2 Topic: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources, issues relating to poverty and hunger.</i>	<b>51</b>
<b>WHO’s First-Ever List Of The Dirty Dozen Superbugs</b>	<b>51</b>
<b>West Bengal passes Bill to rein in private hospitals</b>	<b>51</b>
<b>U.S. nixed India’s plea on reforms in medicine</b>	<b>52</b>
<b>Low MR vaccine coverage in TN a worry</b>	<b>52</b>
<b>Battling Leptospira at the genome level</b>	<b>53</b>
<b>IMA wants doctors to report any unusual symptoms they notice in patients</b>	<b>54</b>
<b>‘Tests useful to find cause of stillbirth’</b>	<b>54</b>
<b>U.K. grants doctors first licence to create 3-parent babies</b>	<b>55</b>
<b>The lowdown on India’s plan to eliminate TB by 2025</b>	<b>56</b>
<b>1.04 cr hit by arsenic contamination in Bengal</b>	<b>57</b>
<b>Tamil Nadu in the cycle of drought and floods</b>	<b>58</b>
<b>ICHR to study if Ram Setu is man-made</b>	<b>59</b>
<b>National Conference on Down Syndrome</b>	<b>60</b>
<b>Find alternatives to pellet guns: SC</b>	<b>61</b>
<b>IMD trains states to deal with heatwaves as temperatures rise</b>	<b>61</b>
<b>New accident recording format</b>	<b>62</b>
<i>Paper 2 Topic: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and bodies constituted for the protection and betterment of these vulnerable sections.</i>	<b>63</b>
<b>Centre to Launch Pilot Project on Ornamental Fisheries with total outlay of Rs. 61.89 crore</b>	<b>63</b>
<b>Labour Ministry’s new rule to ensure employer hiring contract labour files unified annual return</b>	<b>64</b>

<i>Paper 2 Topic: Important aspects of governance, transparency and accountability, e-governance- applications, models, successes, limitations, and potential; citizens charters, transparency &amp; accountability and institutional and other measures.</i>	64
India first in bribery rate, says global NGO	64
Electoral bonds to flag elections: FM	66
Centre plumps for rural FMCG e-sales	66
Centre issues draft rules on e-wallet payments	67
On computing ability, rural India is lost in the woods	67
World Consumers Day	68
CAG pulls up I-T Dept. on shell companies	68
Celebrities to face law for misleading ads	69
India slips in human development index	69
8 tribunals face axe amid downsizing	71
Corporate funding norms for political parties eased	72
A leaner military is on the cards	72
Online Film Certification System	73
CAG protests refusal of access to GSTN data	73
<i>Paper 2 Topic: Development processes and the development industry the role of NGOs, SHGs, various groups and associations, donors, charities, institutional and other stakeholders.</i>	74
India to Host 10th International Conference on Theory and Practice of Electronic Governance: ICEGOV 2017	74
Australia wants India to be a 'consistent buyer' of its cotton	75
Labour code to provide social security cover to all workers	75
<i>Paper 2 Topic: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.</i>	76
Commonwealth card mooted	76
Commonwealth unveils initiative to stamp out domestic violence	77
Global fund to help solve India's HIV drug crisis	77
Centre mulls more 'border haats'	78
India and Belgium sign Protocol amending the India-Belgium Double Taxation Avoidance Agreement and Protocol	78
India, Pak's entry into SCO may boost regional stability: Chinese media	78
Cabinet apprised of MoUs for cooperation in Youth and Sports Matters with Indonesia and the Kyrgyz Republic	79
Cabinet approves of MoU between India and Bangladesh on Aids to Navigation (AtoNs)	79
India's contribution to United Nations rose 55% to Rs 244 crore in 2015-16	80
International Diamond Conference "Mines to Market 2017"	81
BIMSTEC meet to focus on terror	81
1st Grand Challenges India (GCI) Meeting	82
India wants to hasten talks on proposed global services pact	82
UK govt certifies India's request for extradition of Vijay Mallya	83

<i>Paper 2 Topic: India and its neighbourhood- relations.</i>	84
India to attend Lahore meet on Indus Waters Treaty	84
Half of India-Bangladesh border fenced	85
13th Executive Committee Meeting of the International Smart Grid Action Network (ISGAN) inaugurated	85
Definitive Agreement on Oil Storage and Management between Indian Strategic Petroleum Reserve Ltd (ISPRL) and Abu Dhabi National Oil Company (ADNOC) of UAE	86
Cabinet approves MoU between India and the United Nations Entity of Gender Equality and Empowerment of Women (UN-Women)	87
Cabinet approves India's accession to the Customs Convention on International Transport of Goods under cover of TIR Carnets (TIR Convention)	88
China planning five-fold increase in marine force	89
Gilgit-Baltistan to be declared a Province	90
Why is the World Bank keen on resolving Indus divide?	90
New Delhi, Kabul talks soon to boost trade	91
India, Pakistan to review Miyar project	92
<i>Paper 2 Topic: Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.</i>	93
'Free trade should be fair too'	93
Aleppo report accuses all sides of brutal war crimes	93
Syrian Army recaptures Palmyra	94
Sweden to reintroduce conscription after 6 years	95
Donald Trump signs 'Muslim Ban 2.0' order	95
No change in India's stance on UNSC veto	96
Pakistan's Hindu marriage bill passed by both houses of Parliament	96
Scotland seeks split from UK over Brexit	97
Indian drugmakers face squeeze in U.S. healthcare market	97
Norway is the world's happiest country	98
<i>Paper 2 Topic: Important International institutions, agencies and fora, their structure, mandate.</i>	99
Pakistan returns to SAARC, gets Secretary General post	99
India gold demand to revive in 2017, says World Gold Council	99
Ministry of Railways and United Nations Environment Programme (UNEP) signed Letters of Intent(LOI) on Environment Initiatives	100
Commonwealth trade meet begins	101
India to lose presence on U.N. scientific panel	102
Ban lawmakers from practising other professions: plea in SC	102
ICRISAT, ICAR join hands for crop improvement	103
Shri Upendra Tripathy Appointed as Full Time Interim Director General of ISA	103
NABARD launches Water Conservation Campaign in 1 lakh villages	104
India Signs Financing Agreement with World Bank	105
U.N. picks former U.S. state governor to run World Food Programme	106

<b>Govt., NDB ink \$350 mn. loan pact</b>	<b>106</b>
<b>GS III</b>	<b>109</b>
<i>Paper 3 Topic: Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.</i>	109
<b>Central Board of Direct Taxes (CBDT) signs ten (10) more Advance Pricing Agreements (APAs)</b>	<b>109</b>
<b>CGST Bill and IGST Bill approved</b>	<b>109</b>
<b>NIIF in talks with two sovereign funds</b>	<b>110</b>
<b>Downloading apps may cost money with 'Google tax': Report</b>	<b>110</b>
<b>Funds to Swachh Bharat Kosh (SBK)</b>	<b>111</b>
<b>Projects approved for Swift Implementation of Namami Gange Programme in Uttarakhand, Bihar, Jharkhand and Delhi</b>	<b>112</b>
<b>Cabinet approves of proposal to establish a Fund of Fund for Start-ups (FFS)</b>	<b>112</b>
<b>Jobs impact of 'Make In India' under review</b>	<b>113</b>
<b>Centre seeks banks' turnaround plans</b>	<b>114</b>
<b>By 2021, 4 out of 10 jobs would be lost to automation</b>	<b>114</b>
<i>Paper 3 Topic: Government Budgeting.</i>	115
<b>FM releases the Revised General Financial Rules (GFR) 2017</b>	<b>115</b>
<i>Paper 3 Topic: Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.</i>	115
<b>'Help speed up resolution of commercial disputes'</b>	<b>115</b>
<i>Paper 3 Topic: Inclusive growth and issues arising from it.</i>	116
<b>Start-up firms may soon find it easy to wind up</b>	<b>116</b>
<b>SBI-Mahila bank merger okayed</b>	<b>117</b>
<i>Paper 3 Topic: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.</i>	117
<b>First Integrated Heliport of the Nation</b>	<b>117</b>
<b>Tezu is now a vantage point</b>	<b>117</b>
<b>Bridge across River Narmada at Bharuch inaugurated</b>	<b>118</b>
<b>Cabinet approves Revised Cost Estimate-I of Koteswar Hydro Electric Project in Uttarakhand</b>	<b>119</b>
<b>India ranks 87th on energy architecture performance: World Economic Forum</b>	<b>119</b>
<b>India becomes Net Exporter of Electricity for the first Time</b>	<b>120</b>
<b>Centre picks five airlines to connect 43 regional airports</b>	<b>121</b>
<i>Paper 3 Topic: Science and Technology- developments and their applications and effects in everyday life Achievements of Indians in science &amp; technology; indigenization of technology and developing new technology.</i>	122
<b>National Science Day</b>	<b>122</b>
<b>Successful Test Firing of AAD Endo-Atmospheric Interceptor Missile</b>	<b>123</b>
<b>DMRL AND JSNL Sign Licensing Agreement for Transfer of Technology of High Nitrogen Steel</b>	<b>123</b>
<b>DRDO Hands Over its Developed Products to Indian Army</b>	<b>123</b>
<b>Brahmos missile</b>	<b>124</b>
<b>Indian researcher uses novel strategy to increase wheat yield</b>	<b>125</b>
<b>Study on fish reveals key to cure blindness</b>	<b>125</b>

<b>Chennai team taps AI to read Indus Script</b>	<b>126</b>
<b>Sweet spot in eye helps humans read</b>	<b>127</b>
<b>Cabinet approves Policy for Early Monetization of Coal Bed Methane Gas Marketing and Pricing Freedom for CBM Gas</b>	<b>127</b>
<b>New Wi-Fi system to offer super-fast connectivity</b>	<b>128</b>
<b>Green nod for Neutrino project suspended</b>	<b>129</b>
<b>Third largest hypersonic wind tunnel at VSSC</b>	<b>131</b>
<b>Scientists switch on the world's largest 'artificial sun'</b>	<b>131</b>
<i>Paper 3 Topic: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.</i>	<b>132</b>
<b>Trade Mark Rules 2017</b>	<b>132</b>
<b>NASA to explore Jupiter's icy moon</b>	<b>133</b>
<b>'Lost' Chandrayaan-1 orbiting Moon: NASA</b>	<b>134</b>
<b>Telescope upgrade to sniff out solar storms</b>	<b>134</b>
<b>Massive brown dwarf 750 light years away</b>	<b>135</b>
<b>Sands of Saturn's moon Titan are electrically charged</b>	<b>136</b>
<b>Planetary waves, first found on Earth, are discovered on Sun</b>	<b>137</b>
<i>Paper 3 Topic: Conservation, environmental pollution and degradation, environmental impact assessment.</i>	<b>138</b>
<b>Madras HC orders TN govt to enact law on removal of seemai karuvelam trees</b>	<b>138</b>
<b>Even hill stations will be hotter this year, warns IMD</b>	<b>138</b>
<b>World Wildlife Day</b>	<b>139</b>
<b>For Olive Ridleys, it's paradise lost</b>	<b>140</b>
<b>Centre dithers on Western Ghats issue</b>	<b>140</b>
<b>Caught between custom and conservation</b>	<b>141</b>
<b>Centre launches survey on Gangetic dolphins</b>	<b>141</b>
<b>Workshop on Arsenic problem in ground water and its remediation in Ganga Basin held</b>	<b>142</b>
<b>Jal Kranti Abhiyan</b>	<b>143</b>
<b>Web Portal for obtaining CRZ Clearances</b>	<b>143</b>
<b>Synchronous elephant count by four States in May</b>	<b>144</b>
<b>A mass coral bleaching again</b>	<b>145</b>
<b>First "Pristine air-quality monitoring station at Palampur"</b>	<b>146</b>
<b>Ganga, Yamuna termed 'living persons'</b>	<b>147</b>
<b>WORLD FORESTRY DAY</b>	<b>147</b>
<b>World Water Day</b>	<b>148</b>
<b>Sea ice hits record winter low</b>	<b>148</b>
<b>Environment Ministry official to chair animal welfare board</b>	<b>148</b>
<b>Earth hour</b>	<b>149</b>
<b>Hills sizzle at 8°C above normal</b>	<b>150</b>

*Paper 3 Topic: Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security; money-laundering and its prevention.* \_ 150

<b>Law enforcement in the digital era</b>	<b>150</b>
<b>US regulators reject bitcoin ETF, digital currency plunges</b>	<b>151</b>
<b>Parliamentary panel fumes as NATGRID posts remain vacant</b>	<b>152</b>
<b>Chinese city announces punishments for VPN users</b>	<b>153</b>
<b>Facts for Prelims</b>	<b>155</b>
<b>AI Nagah-II 2017</b>	<b>155</b>
<b>Regional conference on enhancing steel consumption in India</b>	<b>155</b>
<b>India's WTO ambassador</b>	<b>155</b>
<b>#WeAreEqual</b>	<b>155</b>
<b>India to train Myanmar Navy</b>	<b>155</b>
<b>FOIN 2017   AI Nagah-II 2017   National Awards for Innovation in Educational Administration</b>	<b>156</b>
<b>Surya Kiran – XI   PAU develops country's first Bt cotton varieties   IISc among world's best 10 varsities</b>	<b>156</b>
<b>INS Tillanchang   RV Sindhu Sankalp completes 100 expeditions</b>	<b>157</b>
<b>Pak. to begin first census in 19 years   NTPC installs India's largest floating solar PV plant   Bangladesh declares March 25 as 'Genocide Day'</b>	<b>158</b>
<b>Krishi Unnati Mela 2017   World's first fluorescent frog</b>	<b>158</b>
<b>India hosts world's oldest algae fossil:</b>	<b>159</b>
<b>J&amp;K gets India's longest road tunnel:</b>	<b>159</b>
<b>Global Millennium Summit</b>	<b>159</b>
<b>World poetry day</b>	<b>159</b>
<b>American Hindu Coalition (AHC)</b>	<b>160</b>
<b>World TB Day 2017</b>	<b>160</b>
<b>World Conference on Environment   India to redefine blindness to meet WHO stipulation</b>	<b>160</b>
<b>World Winter Games 2017   China nominates Tai Chi for UNESCO list   Cyclone Debbie</b>	<b>160</b>
<b>INLCU L51   Mining banned for four months in Uttarakhand</b>	<b>161</b>
<b>Haryana government to set up Centre for flowers in Jhajjar to promote floriculture   New secure pound coin goes into circulation in UK</b>	<b>161</b>
<b>SAW (single actuator wave-like robot)</b>	<b>162</b>
<b>Kanha tiger reserve becomes first in India get official mascot</b>	<b>162</b>

**Paper 1 Topic:** Indian culture will cover the salient aspects of Art Forms, Literature and Architecture from ancient to modern times.

### Lakkaram tank regains lost glory

The Lakkaram tank of Kakatiya period here has received a new lease of life following near total restoration of the water body at an estimated cost of Rs 13.5 crore under the Mission Kakatiya scheme.

#### Mission Kakatiya:

Mission Kakatiya is the Telangana government's flagship programme aimed at restoring minor irrigation sources like tanks and other water bodies to help small and marginal farmers.

The name 'Mission Kakatiya' is given in the remembrance and tribute to the Kakatiya rulers who developed large number of the irrigation tanks.

#### About kakatiya dynasty-Key facts:

The 12th and the 13th centuries saw the emergence of the Kakatiyas. They were at first the feudatories of the **Western Chalukyas of Kalyana**, ruling over a small territory near Warangal. **Prataparudra I established a sovereign dynasty** in 1163 CE. The dynasty saw powerful leaders like Ganapathi Deva and Rudramadevi.

- Prataparudra I, also known as Kakatiya Rudradeva, was the son of the Kakatiya leader Prola II. It was under his rule that the Kakatiyas declared sovereignty. He ruled the kingdom till 1195 A.D.
- It was under the rule of Prataparudra I that usage of Telugu language in inscriptions began.
- Before the establishment of Orugallu/Warangal as the capital, Hanamakonda was the first capital of the Kakatiyas.
- The great **Italian traveller Marco Polo visited the Kakatiya Kingdom sometime during Rudramadevi's tenure** as the ruler of the Kakatiya Dynasty and made note of her administrative style; admiring her extensively.
- The iconic Kakatiya Thoranam was built by Rudramadevi's father in the 12th Century. This ornate arch is said to have many similarities with the gateways at the Sanchi Stupa and is also the emblem of Telangana.
- The scenic **Pakhal lake in Warangal was built by Ganapathi Deva**.
- The **1000 pillar temple** in Warangal was built during the Kakatiya Rule and is another example to the exquisite Kakatiya Architecture.
- Under the Kakatiya rule, the caste system was not rigid and in fact, it was not given much significance socially. Anyone could take up any profession and people were not bound to an occupation by birth.
- The **Koh-i-Noor Diamond**, which is now among the jewels set in the British Crown, was mined and first owned by the Kakatiya Dynasty.
- Since the end of 13th Century and the early of 14th Century, Kakatiya Kingdom faced several attacks by the Delhi Sultanate. The attacks started under Alauddin Khilji's rule and it is said that it is during this time that the Koh-i-Noor went into the hands of the Delhi Sultanate.
- The Kakatiya rule finally came to an end in 1323 A.D. when Warangal was conquered by the Ghiyasuddin Tughlaq, the then Sultan of Delhi.

Sources: the hindu.

## PM Modi releases postage stamp on 100 years of Yogoda Satsang Math

A commemorative postage stamp was recently released by the PM on 100 years of **Yogoda Satsang Math**.

### Background:

This year marks the **100th anniversary** of Yogoda Satsanga Society of India (YSS), founded in 1917 by **Paramahansa Yogananda**, whose Autobiography of a Yogi has introduced millions of truth seekers all over the world to yoga and meditation, and whose universal Kriya Yoga teachings provide methods for achieving spiritually harmonious lives.

The “science” of Kriya Yoga is the foundation of Yogananda’s teachings. Kriya Yoga is “union (yoga) with the Infinite through a certain action or rite (kriya). The Kriya Yogi mentally directs his life energy to revolve, upward and downward, around the six spinal centers (medullary, cervical, dorsal, lumbar, sacral, and coccygeal plexuses) which correspond to the twelve astral signs of the zodiac, the symbolic Cosmic Man. One-half minute of revolution of energy around the sensitive spinal cord of man effects subtle progress in his evolution; that half-minute of Kriya equals one year of natural spiritual unfoldment.

### About Yogoda Satsanga Society of India (YSS):

Yogoda Satsanga Society of India (YSS) is a non-profit religious organization. In countries outside the Indian subcontinent it is known as the **Self-Realization Fellowship**.

Sources: pib.

## Reviving Assam's ancient ink

By unravelling the science behind Assam's ancient herbal ink '**mahi**', researchers are planning to recreate the lost techniques of manuscript writing. They say their efforts could boost heritage tourism.

### Background:

'Mahi' was used in early and medieval Assam for writing on 'sancipat' (folios made of the bark of the sanci tree) manuscripts. Some folios were gifted by Kumar Bhaskar Barman, the then King of Pragjyotishpura (ancient Assam) to Harshavardhana, an emperor who ruled north India from 606 to 647 C.E., a testimony to the period of use.

### About mahi ink:

The technique involves extracting 'mahi' using cow urine from a cocktail of fruit pulp and tree bark such as haritaki, amla, bibhitakhi or bhomora, mango and jamun — often infused with the blood of eels or catfish. Rust from iron tools or nails was added for an intense black hue.

- The endurance of the ink is proven by the stability of sancipat manuscripts. The key factor for this long-lasting marriage between 'mahi' and 'sancipat' is the herbal concoction's resistance to aerial oxidation and fungal attacks.
- The major phytochemical constituents in 'mahi' have been identified as phenolic acids, flavonoids and tannins and their complexes with iron. Though there are several recorded recipes for 'mahi' formulation, one commonality exists for all: the season during which it is concocted.
- Another interesting feature is that the pH of mahi remains neutral because of cow urine and the absence of acidic ingredients like vinegar. No stabiliser is used in mahi.

Sources: the hindu.

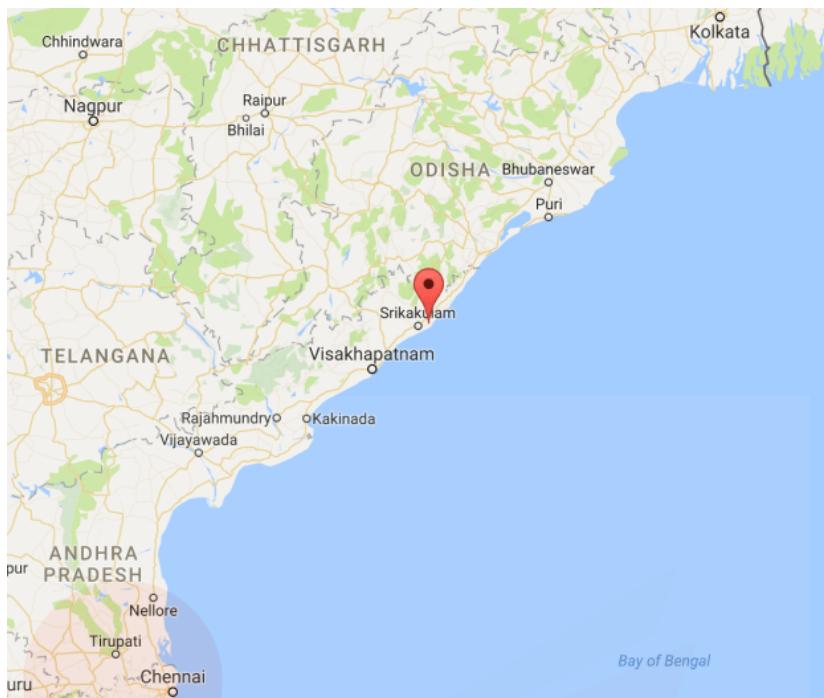
## Move to get world heritage status for Sankaram

The Buddhist Heritage sites at Salihundam (Srikakulam district) and Sankaram near Anakapalle in Visakhapatnam district, in addition to Lepakshi (Anantapur district) and the Nagarjunakonda International Museum (Guntur district) are likely to find a place in the list of Unesco World Heritage Sites.

- In this regard, the Archaeological Survey of India (ASI) has sought a proposal from its Hyderabad unit, for sending it to the Unesco World Heritage Centre for tentative listing.

#### **Key facts:**

- Sankaram**, also known as **Bojjannakonda**, was excavated under the aegis of Alexander Rim in 1906. A gold coin belonging to the Samudragupta period, copper coins of the Chalukya king, Kubja Vishnu Vardhan, coins of Andhra Satavahanas and pottery were discovered at the site.
- An interesting aspect of the Bojjannakonda finds is that they feature all the three phases of Buddhism: Hinayana, Mahayana and Vajrayana. A stairway leads to a large double-storeyed cave on a hill. The rectangular cave has a doorway and is flanked by 'dwarapalakas' on either side.
- There is a rock-cut stupa, standing on a square platform, at the centre of the cave. A series of rock-cut caves and monolithic structures standing on rock platforms are seen on the northern side of the hill.
- The upper cave has a rectangular doorway, flanked by figures of the Buddha on either side. The imposing figures of the Buddha in a seated meditative posture and the stupa are the main attractions for tourists at Bojjannakonda.
- To the west of Bojjannakonda is another hillock, Lingalakonda or Lingalametta, where a number of monolithic and structural stupas can be seen.
- The caves at Bojjannakonda and those in Takshasila are similar. The word 'Sangrama' was in use at Takshasila but was never used in Andhra Pradesh. These two features suggest that Bojjannakonda was influenced by Buddhist practices in northern India.



Sources: the hindu.

## Nowruz

Nowruz, also spelled as Navroz, is the Iranian New Year celebrated by ethnic Iranian people. Several ethno-linguistic communities around the world irrespective of their religious background observe it as the start of the New Year. In India, the Parsi community, who follow Zoroastrianism, celebrate Navroz with full fervour. This year, it falls on March 21.

### **What are the origins of Navroz? Which communities celebrate Navroz?**

Navroz is the beginning of the New Year for several communities. It dates back as far as the 6th Century BC, back when the Iranian community were homogeneously Zoroastrians. Once the community divided over the course of history, people of Iranian origin worldwide continued following Zoroastrian traditions and with that the Iranian New Year as well.

### **What is the significance of Navroz?**

Apart from the difference of one or two days, the Iranian community celebrates Navroz on March 21. March 21 is the first day of the Iranian calendar. It is also marked as the day King Jamshid was crowned as the King of Persia. King Jamshid holds a great significance in Zoroastrianism and the day of his coronation is generally considered to be the

beginning of the New Year among Iranian people. It is interestingly the first day of the Aries constellation. Navroz is also the day of the Spring equinox and the rituals are performed based on the movements of the sun during the course of the day.

### How is it celebrated in India?

In India, the Parsi community celebrate the Iranian New Year in a similar fashion as is around the world. People decorate their houses and wear new clothes on the occasion of Navroz. A visit to the Fire Temple, the place of worship of the Parsi community, is a ritual followed on Navroz every morning. Special prayers are offered and once the religious rituals are done, Parsis celebrate the day with various delicacies. In India, prominent numbers of the Parsi community still remain in Mumbai and Gujarat, who celebrate Navroz with ardour.

Sources: ie.

## Hindu New Year

Hindu New Year is being welcomed in different parts of the country today with traditional festivities and celebrations.

The **Chaitra Sukladi, Ugadi, Gudi Padava, Navareh, Navroz and Chetti Chand** are the same festivals in different names, marking the occasion.

### Various festivals celebrated today:

- **Andhra Pradesh and Telangana:** Ugadi.
- **Karnataka:** Yugadi /Ugadi.
- **Maharashtra:** Gudi Padwa.
- **Rajasthan:**
- **Sindhis:** Cheti Chand.
- **Manipuris:** Sajibu Cheiraoba.
- **Kashmir:**
- Hindus of **Bali and Indonesia** also celebrate their new year on the same day as Nyepi.



Sources: pib.

**Paper 1 Topic:** Modern Indian history from about the middle of the eighteenth century until the present-significant events, personalities, issues.

## Kamaladevi Chattopadhyaya National Awards

The Government has announced '**Kamaladevi Chattopadhyaya National Awards**', a new category of awards **specially for women handloom weavers and women handicraft artisans**.

- The awards are being instituted from this year, so that women weavers and artisans receive due recognition and economic benefits associated with the Awards.

### About Kamaladevi Chattopadhyay:

Kamaladevi Chattopadhyay was an Indian social reformer and freedom fighter. She is most remembered for her contribution to the Indian independence movement; for being the driving force behind the renaissance of Indian handicrafts, handlooms, and theatre in independent India; and for upliftment of the socio-economic standard of Indian women by pioneering the co-operative movement.

- Several cultural institutions in India today exist because of her vision, including the National School of Drama, Sangeet Natak Akademi, Central Cottage Industries Emporium, and the Crafts Council of India.

- In 1974, she was awarded the Sangeet Natak Akademi Fellowship the highest honour conferred by the Sangeet Natak Akademi, India's National Academy of Music, Dance & Drama.

Sources: pib.

## Tipu's armoury finds a new home

The task of relocation of the 18th Century Tipu Sultan's armoury at Srirangapatna has successfully been completed, making it the first such exercise in the history of Indian Railways that entailed moving a monument in one piece to a new site.

- The location approved by the ASI for the final shifting of the monument is at a distance of 100 meters from the original site.

### **Background:**

Though relocating a structure is a complex process, the problem was compounded for the railways as the monument was a masonry structure with hollow bricks and lime mortar, and the ASI had categorically stated that the structure should not be cut and reassembled.

Besides, the Indian Railways lacked the technology for such translocation and the Institution of Engineers was asked to study and submit a report. The railways also scouted for private firms and based on the combined input, it came out with a methodology for shifting, which was approved by the Department of Archaeology, Government of Karnataka.

### **March 21, 1791:**

The recent shifting of the Tipu Sultan armoury that stood on the Bengaluru-Mysuru railway track in Srirangapatna hindering its doubling work, has almost coincided with yet another historical milestone this month — 226 years of the III Mysore War also called Third Anglo-Mysore war — the last major battle fought in Bengaluru where the British forces captured Bangalore Fort.

Lord Cornwallis, who had then taken over the command of East India Company led the contingent for the III Anglo-Mysore war against Tipu Sultan and the first attack was launched on March 21, 1791. The battle ended with the East India Company capturing the Bangalore Fort and Tipu had to retract to Srirangapatna.

### **About Tipu Sultan:**

- He was a ruler of the Kingdom of Mysore. He was the eldest son of Sultan Hyder Ali of Mysore.
- Tipu introduced a number of administrative innovations during his rule, including his coinage, a new Mauludi lunisolar calendar, and a new land revenue system which initiated the growth of Mysore silk industry.
- Tipu expanded the iron-cased Mysorean rockets and commissioned the military manual Fathul Mujahidin.
- He is considered a pioneer in the use of rocket artillery. Tipu Sultan deployed the rockets against advances of British forces and their allies in their 1792 and 1799 Siege of Srirangapatna.
- Napoleon, the French commander-in-chief who later became emperor, sought an alliance with Tipu. In alliance with the French in their struggle with the British, and in Mysore's struggles with other surrounding powers, both Tipu and his father used their French trained army against the Marathas, Sira, and rulers of Malabar, Kodagu, Bednore, Carnatic, and Travancore.

Sources: the hindu.

## Titu Mir returns to roil Bengal, 190 years after his fall in war

Row over Titu Mir has been sparked again by the introduction of a chapter in the textbook in West Bengal.

### What's the issue?

The West Bengal Board of Secondary Education has approved the introduction of a chapter in its 10<sup>th</sup> history book that claims Titu Mir "killed" many Hindus and destroyed several temples.

Some historians have challenged this assertion, while the Opposition described it as a "distortion of history."

### About titu mir:

- Titu Mir (1782-1831) a peasant leader who resisted the oppression of the local zamindars and European indigo planters on the peasantry with ultimate object of liberating the country from British domination.
- He was a leader of the **tariqah-i-muhammadiya** in Bengal, and his movement initially aimed at socio-religious reforms, elimination of the practice of shirk (pantheism) and bidat (innovation) in the Muslim society and at inspiring the Muslims to follow Islamic principles in their day to day life.
- Syed Mir Nisar Ali, or Titu Mir led the **Narkelberia Uprising** in 1831 — often considered the first armed peasant uprising against the British.
- He built a **bamboo fort in Narkelberia village**.
- Celebrated in folklore as a peasant leader, Titu Mir remains a controversial political figure in Bengal for his religious identity as an Islamic preacher after he converted to **Wahabism**.

Sources: the hindu.

### Paper 1 Topic: Salient features of Indian Society, Diversity of India.

## Revitalising a language

Kurukh, an **endangered tribal language** of the **Dravidian family**, is set to get a new lease of life in West Bengal. It is spoken by the **Oraon tribal community**.

- West Bengal government is taking steps for the recognition of the Kurukh language of the Oraon community who live in Dooars. The language was given **official status in the State last month**.

### Key facts:

- Kurukh a member of the North Dravidian subfamily of Dravidian languages, spoken by some 1.8 million people of the Oraon tribes of the Chota Nagpur plateau of east-central India.
- It is closely related to Sauria Paharia and Kumarbhag Paharia, which are often together referred to as Malto.
- The script is called **Tolong Siki**.
- The language is marked as being in a "vulnerable" state in **UNESCO's list of endangered languages**.
- Jharkhand has recognised Kurukh as a language.

Sources: the hindu.

### Paper 1 Topic: Role of women and women's organization, population and associated issues, poverty and developmental issues, urbanization, their problems and their remedies.

## Thiruvananthapuram tops city governance ranking

The report of the Annual Survey of India's City-Systems (ASICS), conducted by Janaagraha Centre for Citizenship and Democracy, was recently released. This is the fourth edition. The survey evaluated 21 major cities from the country's

18 states. The survey highlighted inadequacies in urban governance that could affect public service delivery and quality of life.

### About the survey:

The ASICS report is designed to help city leaders pin point issues in urban governance in their cities and help them chalk out a reform roadmap to make them more livable.

- The City-Systems framework, comprises four distinct but inter-related components – urban planning and design, urban capacities and resources; empowered and legitimate political representation and transparency, accountability and participation.
- The survey for 2016 reveals several systemic inadequacies in urban governance that could affect public service delivery.
- The better a city scores in the survey, the more likely it is that it will be able to deliver better quality of life to citizens over the medium and long-term.
- The survey showed that Indian cities score between 2.1 and 4.4 on scale of 10, as against the global benchmarks of London and New York, which score 9.3 and 9.8 respectively.
- These low scores imply that Indian cities need to strengthen their city-systems – quality of laws, policies and institutions significantly to improve service delivery and deliver a high quality of life to citizens.

### Urban governance ranking

Rank	Rank	City	Average score
<b>2016</b>	<b>2015</b>		<b>Top 5</b>
<b>1</b>	1	Thiruvananthapuram	<b>4.4</b>
<b>2</b>	4	Pune	<b>4.2</b>
<b>3</b>	3	Kolkata	<b>4.1</b>
<b>4</b>	2	Mumbai	<b>4.1</b>
<b>5</b>	6	Hyderabad	<b>3.9</b>
			<b>Bottom 5</b>
<b>17</b>	15	Surat	<b>3.2</b>
<b>18</b>	17	Dehradun	<b>3.1</b>
<b>19</b>	19	Ludhiana	<b>3</b>
<b>20</b>	20	Jaipur	<b>2.7</b>
<b>21</b>	21	Chandigarh	<b>2.1</b>
<b>Global cities' rating</b>		New York	<b>9.9</b>
		London	<b>9.4</b>

Source: Janaagraha

### Highlights of the report:

- Thiruvananthapuram is at the first place. Pune is ranked second, up two ranks from 2015, while Kolkata retains its third slot.
- Delhi slips two places to rank ninth. The biggest gainer in the 2016 survey is Bhubaneswar, which has jumped eight places from 2015 to land at the 10th spot.
- Bengaluru has dropped four places to rank 16, while Ludhiana, Jaipur and Chandigarh retain their previous positions of 19th, 20th and 21st respectively.
- The survey found that the 21 cities generate just 37% of the amount they spend on average, with Patna raising only 17% on its own. Only Mumbai, Delhi, Hyderabad and Pune generate over 50% of the amount they spend from their own revenue.

### Way ahead:

Janaagraha recommends changes in planning laws to address the issues challenging the efficient planning of the cities. The Indian cities quality of laws, policies and institutions significantly to improve service delivery and thereby, deliver a high quality of life to citizens.

Sources: the hindu.

## Google Street View helps manage urban ecosystem

Scientists have concluded that [Google Street View](#) helps manage urban ecosystem.

### Background:

Scientists have used over 100,000 images extracted from Google Street View to map and quantify how street trees regulate urban ecosystems in megacities. While it was generally accepted that trees and plants helped in regulating urban ecosystems, until now researchers had very little data to quantify its extent.

### How was this done?

Researchers developed a method to map and quantify how street trees regulate ecosystem services. Scientists analysed hemispherical photographs using an algorithm to quantify the proportion of green canopy coverage at 50 metre intervals across more than 80% of Singapore's road network.

- Google Street View's technology allowed researchers to tap into a standard dataset of panoramic photographs and streetscapes that use a global positioning system (GPS) to map images to specific locations.
- The high spatial resolution of the images allowed researchers to estimate the amount of solar radiation that reaches the Earth's surface. Researchers said that increasing the cover of the street tree canopy could reduce ground surface and air temperatures on Singapore's streets.

### Significance of this move:

This new and relatively inexpensive method of rapidly estimating the amount of shade provided by street trees could help urban planners to identify areas of a city with low shade and prioritise the planting of new trees.

Sources: the hindu.

## Nari Shakti Puraskars

Nari Shakti Puraskars 2016 will be presented by the President on the eve of International Women's Day.

### About Nari Shakti Puraskars:

To acknowledge Women's achievements, the Government of India confers Nari Shakti Puraskars on eminent women and institutions in recognition of their service towards the cause of women empowerment. The Nari Shakti Awards were initiated in the year 1999.

- The awards recognize the efforts made by women & institutions in rendering distinguished services for the cause of women, especially vulnerable and marginalized women.
- The Ministry of Women and Child Development announces these national level awards for eminent women, organisations and institutions.
- The Nari Shakti Puraskar carries a cash award of Rs.1 Lakh and a certificate for individuals and institutions.

### Eligibility:

The Puraskars are open to all Indian Institutions, organisations and individuals. The WCD Ministry invites nominations from the State Governments, Union Territory Administrations, concerned Central Ministries/Departments, Non-Governmental Organisations, Universities/ Institutions, private and public sector undertakings (PSUs) working for empowerment of women. However, in exceptional cases, the Selection Committee may also, suo moto, recommend a person or institution for the award, with justification.

### Selection process:

A Screening Committee to scrutinize and short list the nominations received for the Awards and a Selection Committee constituted for the purpose considers the achievements of organizations and individuals nominated or recommended

for the Puraskars by the prescribed authority. The outstanding contributions in the field are of primary consideration in identifying the recipients of Puraskars.

The final selections of the Awardees are made by the National Selection Committee which takes into account the recommendations of the Screening Committee. The National Selection Committee may at its discretion also consider individuals other than those recommended by the State Governments/Central Ministries.

Sources: pib.

## International Women's day 2017

International Women's Day was celebrated on March 8 across the world. It is an annual marker that aims to bring attention to women's accomplishments and obstacles.

### Key facts:

- The day is designed to "reflect on progress made, to call for change and to celebrate acts of courage and determination by ordinary women who have played an extraordinary role in the history of their countries and communities.
- The first International Women's Day took place in 1911 in Austria, Denmark, Germany and Switzerland.
- The UN celebrates the day on the basis of different themes. In 2016, the theme was Planet 50-50 by 2030: Step It Up for Gender Equality. This year, the theme is Women in the Changing World of Work: Planet 50-50 by 2030.
- The day has now come to be also known as the United Nations Day for Women's Rights and International Peace.

Sources: the hindu.

## Hyderabad best city to live in, beats Delhi, Mumbai for third time

Mercer's Quality of Living rankings 2017 has been released. Mercer's survey is one of the comprehensive and annual feature to enable multinational companies and other employers to compensate employees fairly when placing them on international assignments.

- The parameters taken into account for the survey include political and social environment, medical care and health considerations, public services, recreation facilities and natural environment amongst others.

### Key facts:

- Hyderabad has scored a hat trick of sorts. It has emerged as the best city in terms of quality of living among Indian cities for the third time in a row.
- In contrast, the national capital New Delhi stays rock bottom for the second consecutive year among the Indian cities surveyed.
- Hyderabad and Pune rank higher than the country's business centres Mumbai and New Delhi. However, on a global scale Hyderabad dropped five places compared to last year to rank 144.
- Globally, Vienna occupies first place for overall quality of living for the eighth year running, with the rest of the top-ten list mostly filled by European cities: Zurich (2), Munich (4), Dusseldorf (6), Frankfurt (7), Geneva (8), Copenhagen (9), and Basel, a newcomer to the list, in 10th place.
- The only non-European cities in the top ten are Auckland, (3) and Vancouver (5). The highest ranking cities in Asia and Latin America are Singapore (25) and Montevideo (79), respectively.

Sources: toi.

## With India at 148th in number of women MPs, UN official moots quotas

Releasing a world ranking of the number of women parliamentarians that placed India at number 148, UN Women — the international organisation's arm for empowering women — has called for reservations for women.

- The rankings of all 193 United Nations member countries were released by the Inter-Parliamentary Union (IPU) and UN Women.

### Performance of various countries:

- In India, women made up 11.8% of the Lok Sabha where 64 were elected to the 542-member house and 11% of the Rajya Sabha with 27 of the 245 members.
- India ranked 88 in the number of women Ministers with five or 18.5% in the cabinet.
- Rwanda ranked first in the number of women parliamentarians with 61.3% in the lower house, followed by Bolivia with 53.1% and Cuba 48.9%.
- In South Asia, Nepal ranked 48 with 29.6% of the lower house seats held by women; Pakistan ranked 89 with 20.6% (but with no Ministers); Bangladesh was 91st with 20.3%, and Sri Lanka lagged at 179th place with 5.8%.
- Bulgaria, France and Nicaragua tied for the first rank for the number of women ministers with 52.9% each.

### About UN Women: The United Nations Entity for Gender Equality and the Empowerment of Women:

UN Women is the UN entity dedicated to gender equality and the empowerment of women. UN Women was established to accelerate progress on meeting their needs worldwide.

In July 2010, the United Nations General Assembly created UN Women, the United Nations Entity for Gender Equality and the Empowerment of Women. In doing so, UN Member States took an historic step in accelerating the Organization's goals on gender equality and the empowerment of women. The creation of UN Women came about as part of the UN reform agenda, bringing together resources and mandates for greater impact.

### It merges and builds on the important work of four previously distinct parts of the UN system, which focused exclusively on gender equality and women's empowerment:

- Division for the Advancement of Women (DAW).
- International Research and Training Institute for the Advancement of Women (INSTRAW).
- Office of the Special Adviser on Gender Issues and Advancement of Women (OSAGI).
- United Nations Development Fund for Women (UNIFEM).

Sources: the hindu.

## Paper 1 Topic: Effects of globalization on Indian society.

### A Government Panel recommends legal framework for protection of interests of migrants in the country

The 'Working Group on Migration' set by the Ministry of Housing & Urban Poverty Alleviation in 2015 has submitted its Report to the Government.

- The Panel has recommended necessary legal and policy framework to protect the interests of the migrants in the country, stating that the migrant population makes substantial contribution to economic growth and their Constitutional rights need to be secured.

### Important recommendations:

- The Working Group has recommended that the Protocols of the Registrar General of India needs to be amended to enable caste based enumeration of migrants so that they can avail the attendant benefits in the States to

which migration takes place. It also recommended that migrants should be enabled to avail benefits of Public Distribution System (PDS) in the destination State by providing for inter-State operability of PDS.

- Referring to Constitutional Right of Freedom of Movement and residence in any part of the territory of the country, the Group suggested that States should be encouraged to proactively eliminate the requirement of domicile status to prevent any discrimination in work and employment. States are also to be asked to include migrant children in the Annual Work Plans under Sarva Siksha Abhiyan (SSA) to uphold their Right to Education.
- Noting that money remittances of migrants was of the order of Rs.50,000 cr during 2007-08, the Working Group suggested that the vast network of post offices need to be made effective use of by reducing the cost of transfer of money to avoid informal remittances. It also suggested that migrants should be enabled to open bank accounts by asking banks to adhere to RBI guidelines regarding Know Your Customer (KYC) norms and not insist on documents that were not required.
- The Group suggested that the hugely underutilized Construction Workers Welfare Cess Fund should be used to promote rental housing, working Women Hostels etc., for the benefit of migrants.

#### **Background:**

According to Census 2011 and National Sample Survey Organisation (NSSO), migrants constitute about 30% of the country's population and also of the total working force. The recent Economic Survey noted that annual migration in the country increased from 3.30 million in 2011 to 9.00 million in 2016.

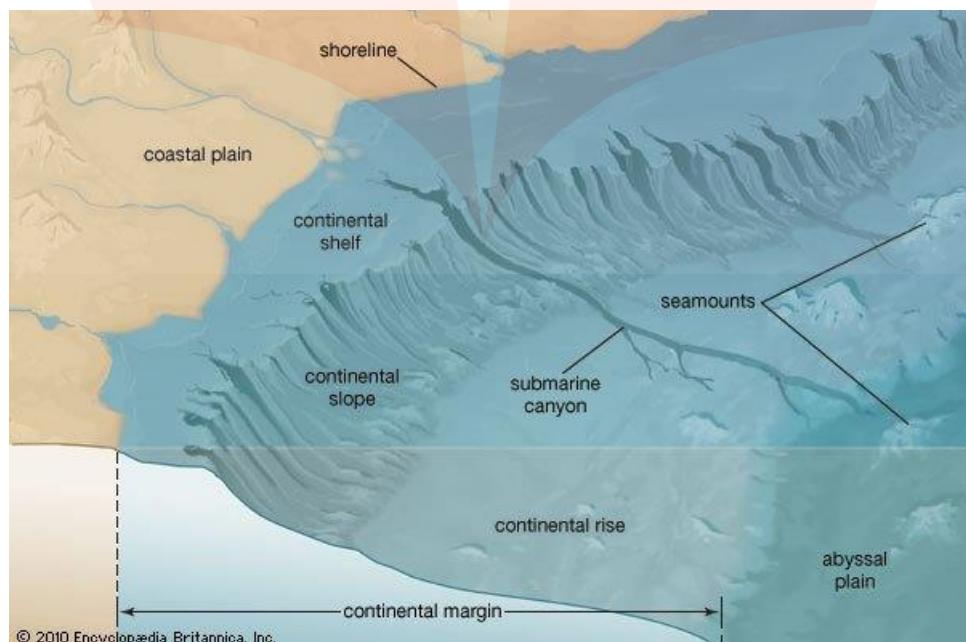
Sources: pib.

**Paper 1 Topic:** Important Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone etc., geographical features and their location- changes in critical geographical features (including water-bodies and ice-caps) and in flora and fauna and the effects of such changes.

#### **NIO finds a new canyon system close to Kovvada coast**

Scientists of CSIR-National Institute of Oceanography (NIO) in Visakhapatnam are an ecstatic lot. They have found three new canyons forming a major canyon system in the depths of **Bay of Bengal** close to **Kovvada** in **Srikakulam** district.

**Canyon systems** are generally formed by flow of river water into the sea and they could be as old as the river system, which is close to 23 million years.



## Key facts:

- The discovery of the new canyon system in the Bay of Bengal by the scientists of CSRI-NIO came five decades after another group of underwater canyons was found in the sixties.
- The new canyon systems were discovered between Visakhapatnam and a few kilometres north of Bheenumipatnam and they were named as Andhra after Andhra University, Mahadevan after Prof. Mahadeven, who is considered to be the father of Geology in India, and Krishna after the then Vice-Chancellor of AU Prof. V.S. Krishna.
- The new canyon system is very huge and probably formed by the **river Kandivalasa**. The depth of the canyon varies from about 90 metres from the starting point to about 2,500 metres at the deepest point, and it extends to about 50 to 70 km deep into the sea and the width varies from 50 metres to two km.
- As per the findings, the depth is more than the Grand Canyon, which is about 1,857 metres.

## Significance of this discovery:

- Most of the canyons in the ocean system across the world act as channels for depositing sediments in the shelf region. The more the deposit, the more are the chances of finding hydro-carbons.
- The discovery of the canyon is not only a major breakthrough in underwater geological formations, but also gives us immense scope to study and explore new benthic ecosystem. The study of ecology and fauna and micro organisms will not only tell us about our past but also throw light on new science. The study of how organisms live and flourish at low oxygen level and high current system can lead us to understand human heart diseases better and help us develop new treatment system.

Sources: the hindu.

## 'India's temperature rose by 0.60 degree over last 110 years'

According to the **Indian Meteorological Department (IMD)**, in line with rising temperatures across the globe, all India mean temperatures have risen nearly 0.60 degree Celsius over the last 110 years. Further IMD studies have highlighted that extreme events like heat waves have risen in the last 30 years.

## Global scenario:

As per the fifth Assessment Report (AR5) of Intergovernmental Panel on Climate Change (IPCC) published in 2014, **globally averaged combined land and ocean surface temperature has risen by 0.85 degree Celsius over the period 1880 to 2012**.

Many extreme weather and climate events like heat waves, heavy precipitation and tropical cyclones have been observed since about 1950.

## Efforts by government to combat climate change:

The government has launched the **National Action Plan on Climate Change (NAPCC)** in June, 2008 to deal with climate change and related issues.



- **NAPCC comprises of eight missions** in specific areas of solar energy, enhanced energy efficiency, habitat, water, sustaining Himalayan ecosystems, forestry, agriculture and strategic knowledge for climate change.
- These missions address the issues relating to mitigation of greenhouse gases and adaptation to the adverse impacts of climate change on environment, forests, habitat, water resources and agriculture.
- **All states and UTs have also been requested to prepare State Action Plan on Climate Change (SAPCC) in line with the objectives of the NAPCC highlighting state-specific issues relating to climate change.** So far, 32 states and UTs have prepared their SAPCC.

Sources: the hindu.

**Paper 1 Topic:** Distribution of key natural resources across the world (including South Asia and the Indian sub-continent); factors responsible for the location of primary, secondary, and tertiary sector industries in various parts of the world (including India).

### 'Significant incidences' of gold found in Uttarakhand

Scientists at the Geological Survey of India (GSI) have discovered, for the first time, "significant incidences" of gold associated with copper mineralisation in parts of Rudraprayag district of Uttarakhand.

- This is the first record of in-situ gold incidence from the Rudraprayag area.

**Occurrence of Gold:** Gold occurs as coarse, liberated particles and fine particles locked in pyrite and copper sulphide.

#### Regions where the gold has been found:

According to the report, the regions bearing gold are best exposed around **Rudraprayag town** in the **Mandakini river valley**. Panning of stream sediments of **Alaknanda and Mandakini rivers** in Sumerpur-Ratura, Sari and Jugtoli areas also revealed a few visible gold flakes.



This part of Uttarakhand where significant incidences of gold has been discovered is in what is known as the "**Lesser Himalaya**" that is sandwiched, in the north, by the Main Central Thrust — the major geological fault where the Indian Plate has been pushed under the Eurasian Plate along the Himalaya — and in the south by North Almora Thrust.

#### Significance of this discovery:

This finding on the occurrence of gold in alluvial deposits — also called **placer gold** — around Rudraprayag is indicative "of some probable potential auriferous (gold-bearing) zone" towards the northern part of the region.

#### Background:

According to the GSI, **gold is currently produced from three mines** — **Hutti, Uti and Hirabuddni** in Karnataka — and, as a by-product, from the base metal sulphide deposits of **Khetri** in Rajasthan and **Mosabani, Singhbhum, and Kundrekocha** in Jharkhand.

Apart from the gold mines in the above-mentioned areas, some gold, although very small in quantity, is collected by "panning" from the sand and gravel of several rivers, including the **Subarnarekha in Jharkhand and the Ambankadava Puzha and Chabiyar Puzha in Kerala**.

Sources: the hindu.



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**Paper 2 Topic:** Indian Constitution- historical underpinnings, evolution, features, amendments, significant provisions and basic structure.

### Fundamental duties: HC seeks Centre's response

The High Court of Karnataka has asked the Central government to submit a statement on actions initiated to create awareness about fundamental duties of the citizens enshrined in the Constitution, while pointing out that the Centre had not done enough in this regard despite a direction given by the apex court in 2003.

#### Background:

The direction was issued while hearing a petition filed by a film producer seeking censorship even for television programmes, through which the court has been making suggestions to the State and Central governments to create awareness among people on their fundamental duties.

#### About Fundamental Duties:

The section “Fundamental Duties” was not a part of the original constitution. These were added to the Constitution much later by the **42nd Amendment in 1976**. The fundamental duties were added to the constitution on the recommendations of the **Swaran Singh Committee**.

- There were ten fundamental duties at the time of incorporation but the eleventh was inserted by the 86th Amendment in 2002. The idea behind incorporation of fundamental duties was to remind the citizens of the country that they have certain obligations towards the country and society. As the state offers them fundamental rights, it is the fundamental duty of each citizen of India to further national integration and contribute towards a better society.
- The fundamental duties are non-justifiable, that is no one can be punished in case of their violation or non-compliance. The fundamental duties are defined as the moral obligations of all citizens to help promote a spirit of patriotism and to uphold the unity of India.

Sources: the hindu.

**Paper 2 Topic:** Separation of powers between various organs dispute redressal mechanisms and institutions.

### Indus basin: Punjab and J&K to resume work on Shahpur Kandi dam project

Punjab and Jammu & Kashmir have reached out an agreement to resolve issues relating to the **Shahpur Kandi Dam** project, proposed to be built downstream **Ranjit Sagar Dam** (Thein Dam) on the Ravi in Gurdaspur district. The project comes under the Indus Water Treaty, thus helping India utilise its rights on eastern rivers of the basin.

- The agreement was facilitated by the Union ministry of water resources, also a cosignatory in the pact.

#### Key facts:

- Punjab will bear the balance cost on account of compensation for land acquisition in respect of Thein Dam, located nearly 10km upstream the **Shahpur Kandi Dam**.
- Punjab will also share with Jammu and Kashmir 20% of the total power generated at Thein Dam at the mutually agreed rate of Rs 3.50 per unit immediately. This is subject to confirmation of the rates by the Central Electricity Regulatory Commission.
- A tripartite monitoring team, headed by a member of the Central Water Commission, would be constituted to oversee the work.

### **About the project:**

The 55.5 high Shahpur Kandi dam, located in Gurdaspur district of Punjab, will help in providing irrigation facility to 5000 hectares of land in Punjab and 32173 hectares in J&K besides generation of 206 MW power.

- Tagged as a national project by the Centre, it was to be built with an estimated cost of Rs 2,285.81 crore (as per April 2008 price level) and is expected to generate 206 megawatt electricity. The project will continue to be implemented by Punjab and its design shall be as agreed by both states. Model studies will be carried out concurrently to ensure J&K gets its mandated share of 1,150 cusecs of water.
- Under the scheme, MoWR, RD&GR provides central assistance @ 90% of the balance cost of works component of irrigation and water supply.
- The construction of Shahpur Kandi project was taken up in May 1999 but later halted in 2014 due to dispute between Punjab and J&K.

Sources: pib.

### **Kerala completes work on first check-dam across the Bhavani**

Notwithstanding stiff opposition from Tamil Nadu, the Kerala Irrigation Department has completed work on the first of the half-a-dozen check-dams proposed across the inter-State river Bhavani to address drinking and irrigation water shortage in Attappady.

- The check-dam is the first major initiative on the part of the State to utilise 6 TMC water awarded from the Bhavani basin by the Cauvery Tribunal 10 years ago.
- The Supreme Court has ratified the verdict and allowed the State to move ahead with its check-dam proposals. However, stiff resistance from Tamil Nadu had delayed the work.

### **Opposition:**

The Tamil Nadu government is planning to move the Supreme Court on the issue of construction of check dams by neighbouring Kerala across the Bhavani river.

### **Background:**

Bhavani River, is a tributary of the River Cauvery originating from the South West Corner of the Nilgiri hills of the Western Ghats in Tamil Nadu states. It enters kerala through Palakkad district between two high forested ridges about 20 kms up to Mukkali, after the abrupt turn in the northeast direction through a totally degraded and denuded catchment about 25 km where the whole population of the Attappady valley lies upto Koodappatti.

- Attappady Reserve Forest is a protected well known prominent forest area in Palakkad district of Kerala. Attappady has many tribal groups include Irular, Mudugar and Kurumbar has own rich culture and tradition that go beyond the Vedic times.
- It is a tributary of Kaveri river.

Sources: the hindu.

### **Supreme Court refuses to stay Manohar Parrikar's oath-taking ceremony**

The Supreme Court has refused to stay the swearing in of BJP's chief minister candidate Manohar Parrikar and ordered a floor test in the Goa Legislative Assembly on March 16.

### **Background:**

The Congress had challenged the invitation extended by the Goa governor to BJP leader Manohar Parrikar to form government, despite emerging as the single largest party in the assembly election.

The Congress party said that as per well-established constitutional norms and conventions, the single-largest party ought to have been given an opportunity to form government and prove its majority.

### **Constitutional powers of governor:**

The governor appoints the chief minister, who enjoys the support of the majority in the Legislative Assembly. The governor also appoints the other members of the Council of Ministers and distributes portfolios to them on the advice of the chief minister. When no party gets a clear majority, the governor can use his discretion in the selection of chief ministerial candidate to prove the majority as soon as possible.

Sources: the hindu.

**Paper 2 Topic:** Structure, organization and functioning of the Executive and the Judiciary Ministries and Departments of the Government; pressure groups and formal/informal associations and their role in the Polity.

### **SC to HCs: Don't keep review pleas pending**

The Supreme Court has asked High Courts to dispose of review petitions as expeditiously as possible to prevent any slow-up in the process of justice.

- The Supreme Court has asked the High Courts not to keep the applications for review pending as that is likely to delay the matter in every court and also embolden the likes of the petitioner to take a stand intelligently depicting the same in the application for condonation of delay.

#### **Background:**

The court was hearing a case in which a plea for review of an order passed by a Single Judge Bench of the Kerala High Court on March 9, 2012 took four years to be decided on October 26, 2016.

#### **Key facts:**

- The court has issued a slew of guidelines for High Courts, litigants and their lawyers while dealing with review petitions. It said "an endeavour has to be made by the High Courts to dispose of the applications for review with expediency."
- The judgment observed that it was also the duty of a litigant to file his review plea against a judgment on time. The court said it was the obligation of counsel filing an application for review to cure or remove the defects at the earliest. Review petitions were often kept on "life support" by litigants and their lawyers to deliberately delay the process.
- The court said the registry of the High Courts had a duty to place the matter before the judge/Bench with defects so that there could be preemptory orders for removal of defects. An adroit method could not be adopted to file an application for review and wait till its rejection and, thereafter, challenge the orders in the special leave petition.

Sources: the hindu.

**Paper 2 Topic:** Appointment to various Constitutional posts, powers, functions and responsibilities of various Constitutional Bodies.

### **CAG to undertake audit of demonetisation fallout**

The Comptroller and Auditor General of India will soon begin an audit of various aspects of demonetisation announced by Prime Minister Narendra Modi on November 8 last year.

- By this measure, the Centre had withdrawn ₹1,000 and ₹500 notes from circulation.

## Demonetisation per se is a banking and money supply issue and as such, outside the CAG's audit jurisdiction. How will CAG proceed ahead?

Though demonetisation is outside CAG's jurisdiction, the CAG is well within its rights to seek audit of fiscal impact of demonetisation, largely its impact on tax revenues. That way the issue gets linked with the public exchequer.

- There are other linkages of demonetisation with the public exchequer that will also be covered by the audit. This would be "expenditure on printing of notes, RBI dividend to the Consolidated Fund, etc."
- The huge amount of data generated by banks and the Income-Tax Department in the wake of demonetisation would also be covered.
- This banking transaction data and the follow-up by the Revenue Department can also be subjected to CAG audit. Audit can look into various risks, such as errors and omissions in identifying the potential tax evaders, failures to pursue the identified suspects, selective and arbitrary pursuance of leads and consequences thereof.

### CAG:

- The Comptroller and Auditor General (CAG) of India is an authority, established by the Constitution of India under **Article 148**.
- CAG audits all receipts and expenditure of the Government of India and the state governments, including those of bodies and authorities substantially financed by the government.
- The CAG is also the **external auditor** of Government-owned corporations and conducts **supplementary audit** of government companies, i.e., any non-banking/ non-insurance company in which the state and Union governments have an equity share of at least 51% or subsidiary companies of existing government companies.
- The reports of the CAG are taken into consideration by the Public Accounts Committees (PACs) and Committees on Public Undertakings (COPUs), which are special committees in the Parliament of India and the state legislatures.
- The CAG enjoys the same status as a judge of Supreme Court of India in Indian order of precedence.
- Appointment: CAG is appointed by the President of India following a recommendation by the Prime Minister. On appointment, he/she has to make an oath or affirmation before the President of India.
- Removal: The CAG can be **removed only on an address from both house of parliament** on the ground of **proved misbehaviour or incapacity**. The CAG vacates the office on attaining the age of **65 years age** even without completing the **6 years term**.



Sources: the hindu.

**Paper 2 Topic:** Statutory, regulatory and various quasi-judicial bodies.

## Nand Kumar Sai assumes charge as Chairman of National Commission for Scheduled Tribes

Senior tribal leader from Chhattisgarh and ex parliamentarian Shri Nand Kuamr Sai recently assumed charge as the chairman of National Commission for Scheduled Tribes (NCST).

### About NCST:

NCST was established by amending **Article 338** and inserting a new **Article 338A** in the Constitution through the Constitution (89th Amendment) Act, 2003. By this amendment, the erstwhile National Commission for Scheduled

Castes and Scheduled Tribes was replaced by two separate Commissions namely- (i) the National Commission for Scheduled Castes (NCSC), and (ii) the National Commission for Scheduled Tribes (NCST).

- The term of office of Chairperson, Vice-Chairperson and each member is three years from the date of assumption of charge. The Chairperson has been given the rank of Union Cabinet Minister and the Vice-Chairperson that of a Minister of State and other Members have the ranks of a Secretary to the Government of India.
- NCST is empowered to investigate and monitor matters relating to safeguards provided for STs under the Constitution or under other laws or under Govt. order. The Commission is also authorized to inquire into specific complaints relating to rights and safeguards of STs and to participate and advise in the Planning Process relating to socio-economic development of STs and to evaluate the progress of their development under the Union and States.
- The commission submits its report to the President annually on the working of safeguards and measures required for effective implementation of Programmers/ Schemes relating to welfare and socio-economic development of STs.

Sources: pib.

## 7th National Awards for Technology Innovation in Petrochemicals and Downstream Plastics Processing Industry (2016-17)

Union Minister for Chemicals & Fertilizers and Parliamentary Affairs, Shri Ananthkumar recently presented the 7th National Awards for Technology Innovation in Petrochemicals and Downstream Plastics Processing Industry (2016-17).

- For the 7th National Awards, 415 nominations were received and finally, 16 nominations have been selected as Winners and 7 nominations as Runners-up for 2016-17.

### About the awards:

Central Institute of Plastics Engineering and Technology (CIPET) has been entrusted with the responsibility of implementing the scheme of the National Awards for Technology Innovation in Petrochemical sector and Downstream Plastics Processing Industry.

### About CIPET:

It is an autonomous organization under Department of Chemicals & Petrochemicals (DCPC). CIPET headquarters was established at Chennai in 1968 with UNDP assistance. It receives funding support from the administration ministry, OPEC, UNIDO and the World Bank.

This is the only institute of this kind in India where all facilities like design, tooling, processing and testing of plastics are available under one roof. CIPET caters to the needs of plastic industries through manpower training, processing, design and CAD/CAM/CAE, testing, consultancy, advisory and developmental services.

Sources: pib.

## NGT fixes norms for camping along Ganga

The National Green Tribunal has prohibited all camping activity on beaches along the Ganga which fall within 100 meters from the middle of the river during lean season flow from Shivpuri to Rishikesh, a hub for eco-tourism and river rafting.

- The Bench relied on various studies by Uttarakhand and the Wildlife Institute of India which said that of the total 56 beaches, 33 were recommended for camping while 23 were out of bounds.
- Out of the 33 sites recommended for beach camping, 3 fall entirely outside the restriction of 100 meters imposed by the Tribunal in various cases, 8 sites are wholly within 100 meters while the remaining 22 sites are partially within 100 meters and partially outside 100 meters.

- The Bench has directed that the management plan prepared by the State government with regard to beach camping be implemented while noting how authorities allowed large number of defaulters included people carrying weapons, drinking on the beaches and even raising permanent/concrete structure at the camping sites.

### **Background:**

The judgment came on a petition highlighting how unregulated camping was leading to pollution in the river and adjoining areas. The petition also showed how tourists left behind litter and polluted the river and the soil.

In December 2015, the NGT in its order had banned rafting and camping activities along 36 kms stretch between Kaudiyala and Rishikesh. It had then noted that the “camping ban” would continue till the “regulatory regime comes into force”.

### **About the National Green Tribunal (NGT): quick look**

NGT has been established under the National Green Tribunal Act 2010 for effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources.

- The tribunal deals with matters relating to the enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property.
- The Tribunal is not bound by the procedure laid down under the Code of Civil Procedure, 1908, but shall be guided by principles of natural justice.
- The Tribunal’s dedicated jurisdiction in environmental matters shall provide speedy environmental justice and help reduce the burden of litigation in the higher courts.
- The Tribunal is mandated to make and endeavour for disposal of applications or appeals finally within 6 months of filing of the same.

### **Members:**

- Sanctioned strength: currently, 10 expert members and 10 judicial members (although the act allows for up to 20 of each).
- Chairman: is the administrative head of the tribunal, also serves as a judicial member and is required to be a serving or retired Chief Justice of a High Court or a judge of the Supreme Court of India.
- Selection: Members are chosen by a selection committee (headed by a sitting judge of the Supreme Court of India) that reviews their applications and conducts interviews.
- The Judicial members are chosen from applicants who are serving or retired judges of High Courts.
- Expert members are chosen from applicants who are either serving or retired bureaucrats not below the rank of an Additional Secretary to the Government of India (not below the rank of Principal Secretary if serving under a state government) with a minimum administrative experience of five years in dealing with environmental matters. Or, the expert members must have a doctorate in a related field.

Sources: the hindu.

### **Centre to contest tribunal order on military pay**

The Defence Ministry has decided as a matter of principle to challenge in the Supreme Court the ruling of the Armed Forces Tribunal to grant non-functional upgrade (NFU) for the armed forces. While the government is not against the upgrade for the services, its challenge is on principle as a tribunal has no authority to take such a decision.

## **Background:**

Last December, the tribunal granted the upgrade to the armed forces personnel in pay and allowances in response to a petition filed by over 160 officers. The upgrade has been one of the core anomalies raised by the services in the Seventh Pay Commission recommendations, which are yet to be implemented for them.

- The upgrade entitles all officers of a batch who are not promoted to draw the salary and grade pay that the senior-most officer of their batch would get after a certain period.
- The Sixth Pay Commission had granted the upgrade to most Group 'A' officers but not the military. Since then, the armed forces had been demanding a one-time notional upgrade to ensure parity. However, the Seventh Pay Commission (SPC) gave a mixed verdict on it and the issue has since been referred to the Anomalies Committee.

## **About Armed Forces Tribunal:**

The Armed Forces Tribunal Act 2007, was passed by the Parliament and led to the formation of AFT with the power provided for the adjudication or trial by Armed Forces Tribunal of disputes and complaints with respect to commission, appointments, enrolments and conditions of service in respect of persons subject to the Army Act, 1950, The Navy Act, 1957 and the Air Force Act, 1950. It can further provide for appeals arising out of orders, findings or sentences of courts- martial held under the said Acts and for matters connected therewith or incidental thereto.

The Tribunal transacts their proceedings as per the Armed Forces Tribunal (Procedure) rules, 2008. All proceedings in the Tribunal will be in English. The Tribunal will normally follow the procedure as is practiced in the High Courts of India.

## **Composition:**

Each Bench comprises of a Judicial Member and an Administrative Member.

- The Judicial Members are retired High Court Judges and Administrative Members are retired Members of the Armed Forces who have held rank of Major General/ equivalent or above for a period of three years or more, Judge Advocate General (JAG), who have held the appointment for at least one year are also entitled to be appointed as the Administrative Member.

Sources: the hindu.

## **Two insolvency professional entities gets IBBI recognition**

The Insolvency and Bankruptcy Board of India (IBBI) has given recognition to two insolvency professional entities- IRR Insolvency Professionals Pvt Ltd and AAA Insolvency Professionals LLP.

- The Insolvency Professionals (IPs) are registered and regulated by the IBBI. They have a critical role in transactions under the Insolvency and Bankruptcy Code, 2016 (Code). The Code and regulations made there under provide for strengthening their capacity on a continuous basis.

## **Background:**

A limited liability partnership, a registered partnership firm or a company may be recognised by the IBBI as an IPE if (a) a majority of the partners of the limited liability partnership or registered partnership firm are registered as insolvency professionals (IPs); or (b) a majority of the whole-time directors of the company are registered as insolvency professionals, as the case may be. An IPE is jointly and severally liable for all acts or omissions of its partners or directors as IPs committed during such partnership or directorship.

## **The Insolvency and Bankruptcy Code, 2016:**

It is considered as the biggest economic reform next only to GST. It offers a market determined, time bound mechanism for **orderly resolution of insolvency**, wherever possible, and orderly exit, wherever required. The Code envisages an ecosystem comprising **National Company Law Appellate Tribunal (NCLAT)**, **National Company Law Tribunal (NCLT)**, **Debt Recovery Appellate Tribunal (DRAT)**, **Debt Recovery Tribunal (DRT)**, **Insolvency and**

**Bankruptcy Board of India (Board), Information Utilities (IUs), Insolvency Professionals (IPs), Insolvency Professional Agencies (IPAs) and Insolvency Professional Entities (IPEs)** for implementation of the Code.

The Insolvency and Bankruptcy Board of India was established on October 1, 2016 in accordance with the provisions of The Insolvency and Bankruptcy Code, 2016. It provides a market-determined and time bound mechanism for orderly resolution of insolvency, wherever possible, and orderly exit, wherever required.

Sources: pib.

## **Minorities' panel has no member**

The National Commission for Minorities (NCM), formed to protect the interests of minority communities, is left with no member. The last member of the panel, Dadi E Mistri, a representative of the Parsi community, demitted office recently after completing his stipulated three-year term with the commission.

The government says the process of filling vacancies is on.

### **About NCM:**

The NCM was set up under the National Commission for Minorities Act, 1992 to look into complaints from members of five religious communities — Muslims, Christians, Sikhs, Buddhists and Zoroastrians (Parsis). Jain community was notified as a minority community in 2014.

- Besides NCM, 15 states, including Uttar Pradesh, Bihar, West Bengal, Maharashtra and Assam, which are home to sizeable minority populace, have set up commissions at their respective levels.
- Aggrieved persons belonging to the communities may approach the state minorities commissions concerned for redressal of their grievances or send their representations to the NCM after exhausting all avenues of remedies available.
- The functions of the state commissions, inter-alia, are to safeguard and protect the interests of minorities provided in the Constitution and laws enacted by Parliament and state legislatures.

Sources: the hindu.

## **Narendra Kumar takes over as Chairman Central Water Commission**

Shri Narendra Kumar, an officer of Central Water Engineering Service (1979 batch) has assumed the charge of Chairman, Central Water Commission (CWC).

### **About Central Water Commission:**

Central Water Commission is a premier Technical Organization of India in the field of Water Resources and is presently functioning as an **attached office of the Ministry of Water Resources, River Development and Ganga Rejuvenation, Government of India**.

The Commission is entrusted with the general responsibilities of initiating, coordinating and furthering in consultation of the State Governments concerned, schemes for control, conservation and utilization of water resources throughout the country, for purpose of Flood Control, Irrigation, Navigation, Drinking Water Supply and Water Power Development. It also undertakes the investigations, construction and execution of any such schemes as required.

Sources: pib.

## New Chairman of National Commission for Safai Karamcharis

Shri Manhar Valji Bhai Zala has been appointed the new chairman of National Commission for Safai Karmachari.

### About NCSK:

**National Commission for Safai Karamcharis** is an **Indian statutory body** was established through **National Commission for Safai Karamcharis Act, 1993**. It aims to promote and safeguard the interests and rights of Safai Karamcharis.

The National Commission for Safai Karamcharis seeks to study, evaluate and monitor the implementation of various schemes for Safai Karamcharis as an autonomous organisation and also to provide redressal of their grievances.

Sources: pib.

## NCST Approves Proposal for Five Additional Seats for Tribals in Sikkim Assembly

National Commission for Schedule Tribes (NCST) has approved the proposal for five additional seat for tribals in Sikkim assembly.

- Out of the proposed additional eight seats, five seats would be reserved for Limbu and Tamang tribes.
- At present there are 32 members in Sikkim assembly and it would be increased to 40. Reserve seats for STs are increased from 12 to 17.

### About NCST:

NCST was established by amending Article 338 and inserting a new Article 338A in the Constitution through the Constitution (89th Amendment) Act, 2003. By this amendment, the erstwhile National Commission for Scheduled Castes and Scheduled Tribes was replaced by two separate Commissions namely- (i) the National Commission for Scheduled Castes (NCSC), and (ii) the National Commission for Scheduled Tribes (NCST).

- The term of office of Chairperson, Vice-Chairperson and each member is three years from the date of assumption of charge. The Chairperson has been given the rank of Union Cabinet Minister and the Vice-Chairperson that of a Minister of State and other Members have the ranks of a Secretary to the Government of India.
- NCST is empowered to investigate and monitor matters relating to safeguards provided for STs under the Constitution or under other laws or under Govt. order. The Commission is also authorized to inquire into specific complaints relating to rights and safeguards of STs and to participate and advise in the Planning Process relating to socio-economic development of STs and to evaluate the progress of their development under the Union and States.
- The commission submits its report to the President annually on the working of safeguards and measures required for effective implementation of Programmers/ Schemes relating to welfare and socio-economic development of STs.

Sources: pib.

## NCLT gives nod for Cairn-Vedanta merger

The National Company Law Tribunal (NCLT) has approved the metals and mining firm Vedanta's merger with its cash-rich oil subsidiary Cairn India, paving the way for the formation of the fourth-largest resource company in the world after BHP Billiton, RioTinto and Glencore Plc.

### About NCLT:

The Central Government constituted National Company Law Tribunal (NCLT) under section 408 of the Companies Act, 2013 in June 2016. It is a successor body of the Company Law Board.

### Powers of NCLT:

- Most of the powers of the Company Law Board under the Companies Act, 1956.
- All the powers of BIFR for revival and rehabilitation of sick industrial companies.
- Power of High Court in the matters of mergers, demergers, amalgamations, winding up, etc.
- Power to order repayment of deposits accepted by Non-Banking Financial Companies.
- Power to wind up companies.
- Power to Review its own orders.



Sources: the hindu.

## National Commission for Socially and Educationally Backward Classes Gets Approved By Cabinet

The Union cabinet has approved setting up of [National Commission for Socially and Educationally Backward Classes replacing the National Commission for Backward Classes](#) (NCBC). This requires amending the Constitution and inserting Article 338B for setting up the new commission.

A bill in this regard will be proposed. The bill to be introduced in Parliament proposes:

- Insertion of a new Clause (26C) under Article 366 to define Socially and Educationally Backward Classes.
- Insertion of provision after Articles 341 and 342 viz. 342 A to provide for Parliament's approval for every inclusion into and exclusion from the Central List of Other Backward Classes.
- Repeal of National Commission for Backward Classes Act, 1993, and Rules framed there under.
- Dissolution of the Commission constituted under the Act of 1993.
- Composition of the new Commission, i.e. National Commission for Socially and Educationally Backward Classes, with a Chairperson, Vice Chairperson and three other Members.

### Background:

Set up in 1993, the NCBC was entrusted with examining requests for inclusion of any class of citizens as a backward class in the lists and hear complaints of over-inclusion or under-inclusion of any backward class in such lists and advice central government on the matter.

Sources: The Hindu, Times of India

## CCI imposes ₹591 crore penalty on Coal India

Fair trade regulator [Competition Commission of India](#) (CCI) has imposed a penalty of ₹591.01 crore upon Coal India Limited (CIL) on finding that CIL and its subsidiaries violated the Competition Act by imposing unfair and discriminatory conditions in Fuel Supply Agreements (FSAs) with power producers for supply of non-coking coal.

- Apart from ordering CIL and its subsidiaries to "cease and desist" from anti-competitive practices, the CCI also directed modification of the FSAs.
- CIL had also been directed to ensure uniformity between old and new power producers as well as between private and PSU power producers.

## **Background:**

The Competition Act, 2002 prohibits anti-competitive agreements, abuse of dominant position by enterprises and regulates combinations (acquisition, acquiring of control and Merger and acquisition), which causes or likely to cause an appreciable adverse effect on competition within India.

## **About CCI:**

Competition Commission of India is a body responsible for enforcing The Competition Act, 2002 throughout India and to prevent activities that have an adverse effect on competition in India. It was established on 14 October 2003. It became fully functional in May 2009.

- CCI consists of a Chairperson and 6 Members appointed by the Central Government.
- The duty of the Commission is to eliminate practices having adverse effect on competition, promote and sustain competition, protect the interests of consumers and ensure freedom of trade in the markets of India.
- The Commission is also required to give opinion on competition issues on a reference received from a statutory authority established under any law and to undertake competition advocacy, create public awareness and impart training on competition issues.



Sources: the hindu.

## **FSSAI performance comes under CAG scanner**

In a first, the Comptroller and Auditor General of India (CAG) is doing a comprehensive performance audit of the country's food regulator, [FSSAI](#).

- CAG's audit is looking at issues such as how FSSAI fixes standards, finalizes regulations, approves products, ensures compliance and conducts surveillance.
- This is a fairly comprehensive audit and is being done for the first time since the regulator came into existence.

## **Background:**

The audit of the Food Safety and Standards Authority of India (FSSAI) comes against the backdrop of the **food regulator's controversial decision to ban manufacturing and sales of Maggi noodles**—a popular snack sold by Swiss company Nestle in India—in 2015.



## **What was the issue?**

After the crackdown on Maggi, questions were raised on FSSAI's capabilities and operations including things like product approval process, one of the primary things the regulator used to do. The Bombay high court in July 2015 asked FSSAI to justify its actions against the noodle brand.

- On 13 August 2015, the Bombay high court set aside the ban imposed by FSSAI on Maggi noodles and asked Nestlé to retest samples at three laboratories certified by the National Accreditation Board for Testing and Calibration Laboratories (NABL).
- On 5 November, Nestlé India said its Maggi noodles received clearance from three laboratories certified by NABL and relaunched the popular snack on 9 November 2015.

## **Significance of this move:**

An audit like this will eventually help the organization enhance its performance. It would find out the loopholes, highlight what the regulator should do to cover up those.

## **About FSSAI:**

FSSAI was set up in August 2011 under the **Food Safety and Standard Act, 2006**.

- It has **powers to lay down standards for food articles and to regulate their manufacturing, storage, distribution, sale and import.**
- Some of its activities include **licencing and surveillance** of food and beverages outlets, enforcement of safety regulations across registered food vendors and ensuring safety of imported food items, their standards and labelling.

Sources: pib.

**Paper 2 Topic:** Government policies and interventions for development in various sectors and issues arising out of their design and it.

## **India signs Financing Agreement with World Bank for Tejaswini**

A Financing Agreement for IDA credit of US\$ 63 million (equivalent) for the “Tejaswini” Socio-Economic Empowerment of Adolescent Girls and Young Women Project” was recently signed between India and the World Bank.

## **About Tejaswini:**

The development objective of Tejaswini, for Socioeconomic Empowerment of Adolescent Girls and Young Women (AGYW) Project in India is to improve completion of market-driven skills training and secondary education for adolescent girls and young women in select districts of Jharkhand.

- The project seeks to empower the adolescent girls with basic life skills and thereafter provide further opportunities to acquire market driven skill training or completion of secondary education, depending on the inclination of the beneficiary. The project will be delivered in 17 Districts of Jharkhand.
- The project has three main components, (i) Expanding social, educational and economic opportunities (ii) Intensive service delivery (iii) State capacity-building and implementation support.
- About 680,000 adolescent girls and young women in the project Districts are expected to benefit from the program.

Sources: pib.

## **Projects worth Rs 1050 Crore Awarded to arrest sewage pollution in Ganga from Patna**

In a major step taken to develop adequate sewage treatment infrastructure in Patna to keep Ganga clean, projects worth Rs 1,050 crore have been awarded under Namami Gange programme. The amount will be spent for setting up two Sewage Treatment Plants (STPs), renovation of one existing STP, construction of two pumping stations and laying of new underground sewage network of about 400 kilometers.

## **About Namami Gange Programme:**

Namami Gange programme was launched as a mission to achieve the target of cleaning river Ganga in an effective manner with the unceasing involvement of all stakeholders, especially five major Ganga basin States – Uttarakhand, Uttar Pradesh, Jharkhand, Bihar and West Bengal.

- The programme envisages River Surface Cleaning, Sewerage Treatment Infrastructure, River Front Development, Bio-Diversity, Afforestation and Public Awareness.

## **Implementation:**

- The program would be implemented by the National Mission for Clean Ganga (NMCG), and its state counterpart organizations i.e., State Program Management Groups (SPMGs).
- In order to improve implementation, a three-tier mechanism has been proposed for project monitoring comprising of a) High level task force chaired by Cabinet Secretary assisted by NMCG at national level, b) State level committee chaired by Chief Secretary assisted by SPMG at state level and c) District level committee chaired by the District Magistrate.
- The program emphasizes on improved coordination mechanisms between various Ministries/Agencies of Central and State governments.

## **Ganga unlikely to be cleaned by 2018:**

According to some experts, the government is unlikely to be able to clean the Ganga by 2018, a target set by the government. Key reasons include “unreasonable” directions by the National Green Tribunal (NGT) questioning the operating capacity of sewage treatment plants in Uttar Pradesh and a delay in clearances by State governments to execute projects.

Sources: the hindu.

## **Keeping over 10 old notes to attract fine**

The Specified Bank Notes (Cessation of Liabilities) Act, 2017 has received President Pranab Mukherjee’s approval. The government has also notified this law making it a criminal offence to possess more than a certain number of the old Rs. 500 and Rs. 1,000 notes.

### **Key facts:**

- Now, possessing more than 10 pieces of old notes by individuals and more than 25 pieces for study, research or numismatics purposes would attract a fine of Rs. 10,000 or five times the value of the cash held, whichever is higher.
- The law also has a provision for a fine of a minimum of Rs. 50,000 if people falsely declare they were outside the country during the demonetisation period of November 9, 2016 to December 30, 2016. According to the rules, those actually outside the country within this window are allowed to deposit the old notes till March 31.
- The Act also effectively puts to end the liability of the RBI and the government on the demonetised currency notes.

### **Background:**

The decision to demonetise high value currency notes was announced by Prime Minister Narendra Modi on November 8, 2016, with the stated objective of hitting those with black money stashed away, as well as stopping the influx of counterfeit notes of these denominations.

Sources: the hindu.

## **Supreme Court seeks reply of govt, EC on PIL on convicts fighting polls**

The government and the Election Commission have been granted the last opportunity by the Supreme Court to spell out their stand on a plea for debarring convicts from contesting polls for life and stopping them from entering the judiciary and the executive.

### **Background:**

A PIL was filed in the Supreme Court seeking a lifetime ban on convicted politicians from holding any political office or post, instead of the present six-year ban.

- “In the Executive and Judiciary, when a person is convicted for any criminal offence, he/she is suspended automatically and debarred from his services for life. This rule, however, is applied differently in case of convicted persons in the legislature,” the petition says.
- The petitioner argues decriminalisation of the polity is impossible without debarring convicted people from electoral politics for life.
- It has also sought implementation of poll reforms proposed by Election Commission, Law Commission and National Commission to review the working of the Constitution.
- The PIL also seeks a direction to them to fix minimum educational qualification and a maximum age limit for persons contesting elections.

#### **Concerns:**

- Even after conviction and undergoing a sentence, a convicted person can form his own political party and is eligible to become the office bearer of any political party.
- In addition, a convicted person is eligible to contest the election and eligible to become member of the legislature and even minister after expiry of a six year period from the date of conviction.

Sources: the hindu.

## **High level delegation to USA to promote India's new Hydrocarbon Exploration and Licensing Policy (HELP) at CERA Week 2017**

A high level delegation led by Minister of State (I/C) for Petroleum and Natural Gas, Shri Dharmendra Pradhan had organized a promotion event for India's new Hydrocarbon Exploration and Licensing Policy (HELP) at CERA Week 2017 in Houston, World's energy capital on 6th March 2017.

- The aim was to encourage active global participation in upcoming investment opportunities in India which has one of the world's fast growing oil and gas industry.
- The promotion event was participated by global energy leaders, government dignitaries, policy makers, innovators and industry professionals.

#### **About HELP:**

The Hydrocarbon Exploration & Licensing Policy (HELP) opens up India's entire sedimentary basin for investment from domestic and foreign players under a simplified, transparent and investor-friendly fiscal and administrative regime.

- The new policy aims to provide Investors a ready access to huge amount of seismic data available in National Data Repository (NDR), flexibility to carve out exploration acreages through an open acreage licensing process and increased operational autonomy through a new revenue sharing model.
- The National Data Repository (NDR) manifested through an open acreage licensing (OAL) process will be a key facilitator by providing seamless access to India's entire E&P data process through a digital medium to all investors with the objective of harnessing the potential of India's large basinal area.

#### **The key features of HELP are:**

- Single, uniform license for extraction and exploration for all types of hydrocarbon prospects.
- Open acreage licensing (OAL) which will permit investors to carve out interested blocks and submit Expression of Interest (EoI), which will be subsequently given through bi-annual bid rounds.
- Simple and easy to administer Revenue Sharing Model.
- Full marketing freedom and free pricing for crude oil and natural gas.
- Exploration allowed during entire contract period.

- Zero royalty rates for deep water & ultra-deep water blocks for first 7 years.
- Equal weightage to work program and fiscal share.
- No oil cess.
- Custom duty exemption.

#### **Background:**

Markit is a week of panel discussions and presentations in the world's energy capital, Houston, among top executives and policymakers from around the globe. The theme at CERAWeek, which runs from March 6-10, focuses on the changing market at a time of turbulence and uncertainty as higher prices start a tentative financial recovery after a hugely difficult 2016 for energy businesses.

- The program provides comprehensive insight into the global and regional energy future by addressing key issues—from markets and geopolitics to technology, project costs, energy and the environment, finance, operational excellence and cyber risks.
- 2017 marks the 36th anniversary of this influential event, ranked among the top five “corporate leader” conferences in the world.

Sources: pib.

## **Maternity Benefit (Amendment) Bill, 2016 passed in the Parliament**

The Lok Sabha has passed the Maternity Benefit (Amendment) Bill, 2016. The Bill had already been passed by the Rajya Sabha during the Winter Session.

#### **The Bill seeks to amend the Maternity Benefit Act, 1961 to provide for the following:**

- Maternity leave available to the working women to be increased from 12 weeks to 26 weeks for the first two children.
- Maternity leave for children beyond the first two will continue to be 12 weeks.
- Maternity leave of 12 weeks to be available to mothers adopting a child below the age of three months as well as to the “commissioning mothers”. The commissioning mother has been defined as biological mother who uses her egg to create an embryo planted in any other woman.
- Every establishment with more than 50 employees to provide for crèche facilities for working mothers and such mothers will be permitted to make four visits during working hours to look after and feed the child in the crèche.
- The employer may permit a woman to work from home if it is possible to do so.
- Every establishment will be required to make these benefits available to the women from the time of her appointment.

#### **Background:**

The amendments in the Bill were taken up following the request by the WCD Minister to the Hon'ble Labour Minister to bring about these changes so that a working woman gets time to exclusively breast-feed her child for 6 months after the birth. This period also enables the working mother to recuperate herself before she goes to back to work. In her communication to the Labour Ministry, the WCD Minister had also highlighted the concerns of commissioning and adopting mothers who also require maternity leave.

Sources: pib.

## Another river-linking project on cards

After successful linkage between the Godavari and Krishna rivers through the Pattiseema project, now the Andhra Pradesh government is embarking on linking the Godavari with the Penna.

- In this regard, highly advanced **LIDAR** (Light Detection and Ranging) Survey will be taken up by Water and Power Consultancy Services (India) Limited (WAPCOS) to prepare a Detailed Project Report (DPR) for supplying Godavari water directly to Rayalaseema.
- The project envisages transporting 20 tmcft from Godavari River to two reservoirs – the existing Somasila Reservoir in the Penna river basin and a new reservoir at Bollapalli.

### About Godavari River:

The Godavari is the second longest river in India after the river Ganges having its source at Tryambakeshwar, Maharashtra.

- It starts in Maharashtra and flows east for 1,465 kilometres (910 mi) emptying into Bay of Bengal draining the Indian states Maharashtra (48.6%), Telangana( 18.8%), Andhra Pradesh (4.5%), Chhattisgarh (10.9%), Madhya Pradesh (10.0%), Odisha (5.7%), Karnataka (1.4%) and Puducherry through its extensive network of tributaries.
- Measuring up to 312,812 km<sup>2</sup> (120,777 sq mi), it forms one of the largest river basins in the Indian subcontinent, with only the Ganges and Indus rivers having a drainage basin larger than it in India.
- Important tributaries include Pravara, Purna, Manjira, Pranhita, Indravati and Sabari.

Sources: the hindu.

## Enemy Property Bill Clears Rajya Sabha

The Rajya Sabha has passed the Enemy Property (Amendment and Validation) Bill, 2016. The 49-year-old law was amended to guard against claims of succession or transfer of properties left by people who migrated to Pakistan and China.

### Key facts:

- The amendments proposed include that once an enemy property is vested in the Custodian, it shall continue to be vested in him as enemy property irrespective of whether the enemy, enemy subject or enemy firm has ceased to be an enemy due to reasons such as death.
- The new Bill ensures that the law of succession does not apply to enemy property; that there cannot be transfer of any property vested in the Custodian by an enemy or enemy subject or enemy firm and that the Custodian shall preserve the enemy property till it is disposed of in accordance with the Act.
- The amendments are aimed at plugging the loopholes in the Act to ensure that the enemy properties that have been vested in the Custodian remain so and do not revert to the enemy subject or firm.
- The Bill also prohibits civil courts and other authorities from entertaining disputes related to enemy property.

### Background:

In early 2016, the government had identified over 16,000 properties across India that could be taken over under this law. A rough estimate had indicated that 9,400 properties, where the process to take over the properties had been completed, were valued at 1 lakh crore rupees.

Sources: the hindu.

## Admiralty Bill, 2016

The Admiralty (Jurisdiction and Settlement of Maritime Claims) Bill, 2016 was recently passed by the Lok Sabha. Admiralty laws deal with cases of accidents in navigable waters or involve contracts related to commerce on such waters. The Bill repeals laws such as the Admiralty Court Act, 1861, the Colonial Courts of Admiralty Act, 1890.

### **Objectives of the bill:**

- The Bill aims to establish a legal framework to consolidate the existing laws relating to admiralty jurisdiction of courts, admiralty proceedings on maritime claims, arrest of vessels and related issues.
- It also aims to replace archaic laws which are hindering efficient governance.

### **Highlights of the Bill:**

**Admiralty jurisdiction:** The jurisdiction with respect to maritime claims under the Bill will vest with the respective High Courts and will extend up to the territorial waters of their respective jurisdictions. The central government may extend the jurisdiction of these High Courts. Currently admiralty jurisdiction applies to the Bombay, Calcutta and Madras High Courts. The Bill further extends this to the High Courts of Karnataka, Gujarat, Orissa, Kerala, Hyderabad, and any other High Court notified by the central government.

**Maritime claims:** The High Courts may exercise jurisdiction on maritime claims arising out of conditions including: (i) disputes regarding ownership of a vessel, (ii) disputes between co-owners of a vessel regarding employment or earnings of the vessel, (iii) mortgage on a vessel, (iv) construction, repair, or conversion of the vessel, (v) disputes arising out of the sale of a vessel, (vi) environmental damage caused by the vessel, etc. The Bill defines a vessel as any ship, boat, or sailing vessel which may or may not be mechanically propelled.

While determining maritime claims under the specified conditions, the courts may settle any outstanding accounts between parties with regard to the vessel. They may also direct that the vessel or a share of it be sold. With regard to a sale, courts may determine the title to the proceeds of such sale.

**Priority of maritime claims:** Among all claims in an admiralty proceeding, highest priority will be given to maritime claims, followed by mortgages on the vessel, and all other claims. Within maritime claims, the highest priority will be given to claims for wages due with regard to employment on the vessel. This would be followed by claims with regard to loss of life or personal injury in connection with the operation of the vessel. Such claims will continue to exist even with the change of ownership of the vessel.

**Jurisdiction over a person:** Courts may exercise admiralty jurisdiction against a person with regard to maritime claims. However, the courts will not entertain complaints against a person in certain cases. These include: (i) damage, or loss of life, or personal injury arising out of collision between vessels that was caused in India, or (ii) non-compliance with the collision regulations of the Merchant Shipping Act, 1958 by a person who does not reside or carry out business in India. Further, Courts will not entertain action against a person until any case against them with regard to the same incident in any court outside India has ended.

**Arrest of vessel:** The courts may order for the arrest of any vessel within their jurisdiction for providing security against a maritime claim which is the subject of a proceeding. They may do so under various reasons such as: (i) owner of the vessel is liable for the claim, (ii) the claim is based on mortgage of the vessel, and (iii) the claim relates to ownership of the vessel, etc.

**Appeals:** Any judgments made by a single Judge of the High Court can be appealed against to a Division Bench of the High Court. Further, the Supreme Court may, on application by any party, transfer an admiralty proceeding at any stage from one High Court to any other High Court. The latter High Court will proceed with the matter from the stage where it stood at the time of the transfer.

**Assessors:** The central government will appoint a list of assessors qualified and experienced in admiralty and maritime matters. The central government will also determine the duties of assessors, and their fee. Typically, assessors assist the judges in determining rates and claims in admiralty proceedings.

#### **Background:**

India is a leading maritime nation and maritime transportation caters to about ninety-five percent of its merchandise trade volume. However, under the present statutory framework, the admiralty jurisdiction of Indian courts flow from laws enacted in the British era. Admiralty jurisdiction relates to powers of the High Courts in respect of claims associated with transport by sea and navigable waterways. The repealing of five admiralty statutes is in line with the Government's commitment to do away with archaic laws which are hindering efficient governance.

Sources: pib.

## **Non-lapsable fund sought for arms buy**

Ministry of defence has sent a proposal to the Ministry of Finance proposing the setting up of a 'Non-lapsable Capital Fund Account'.

#### **Need for such a fund:**

Defence procurement and acquisition is a complicated process, involving long gestation periods and funds allocated for capital acquisition in a particular financial year are not necessarily consumed in that year and ultimately have to be surrendered by the Defence Ministry.

A major defence purchase often takes years to complete, but the budget allocation lapses at the end of the financial year. As a result, the Ministry of Defence is often forced to return money meant for capital acquisition.

#### **Concerns:**

A proposal for obtaining 'in-principle' approval of the Finance Ministry on creation of the account has been sent by the Defence Ministry after obtaining approval of the Defence Minister, and a "response from the Ministry of Finance is awaited."

However, the Finance Ministry is still not in favour of creating a 'Non-lapsable Defence Capital Fund Account' to which the committee expressed its "disappointment" and pointed to the Non-lapsable Central Pool of Resources for the North Eastern region, which was constituted with the approval of Parliament in 1998-99.

#### **Way ahead:**

The Parliamentary Standing Committee on Defence has stated that it "would like the Ministry of Finance to look at the matter afresh" and work out the modalities for creation of the account.

Sources: the hindu.

## **WCD dept seeks CBI probe into duping in name of 'Beti Bachao Beti Padhao' plan**

The women and child development ministry has sought a CBI probe into complaints that over two lakh people in five states were allegedly duped in the name of Beti Bachao Beti Padhao scheme, one of the PM's pet programme to address the dipping child sex ratio and empowering the girl child.

- The ministry has also taken up the matter with the state authorities in Uttar Pradesh, Haryana, Uttarakhand, Punjab and Bihar.

#### **Background:**

According to the ministry, certain unauthorized elements are distributing illegal forms in the name of cash incentive under the scheme. The scheme has no provision for any cash incentives for individuals. BBBP scheme focuses on challenging mindsets and deep rooted patriarchy in the societal system in order to value girl child, strict enforcement

of PC & PNDT Act, advancing education of the girl child: focus is on issues of women empowerment on a life cycle continuum.

#### About the Scheme:

- **Beti Bachao Beti Padhao (BBBP) Scheme** was launched in January, **2015** at Panipat in Haryana.
- The scheme is aimed at **promoting gender equality** and the **significance of educating girls**.
- The Scheme is targeted at **improving the Child Sex Ratio** through multi sectoral interventions including **prevention of gender biased sex selection** and **promoting girls' education** and her **holistic empowerment**.
- It is a tri-ministerial effort of **Ministries of Women and Child Development, Health & Family Welfare and Human Resource Development**.
- In the first phase, **100 districts with low Child Sex Ratio** were selected for the Scheme implementation for creating awareness and advocacy about the issue.
- During the last one year, the BBBP Scheme is being implemented under the overall guidance and supervision of concerned District Magistrate/Deputy Commissioners.

Sources: pib.

## Inter-state River Water Disputes (Amendment) Bill, 2017 introduced in Lok Sabha

The government has introduced Inter-State River Water Disputes (Amendment) Bill, 2017 in Lok Sabha.

#### Highlights of the bill:

- The Bill proposes a Single Standing Tribunal (with multiple benches) instead of existing multiple tribunals, which shall consist of one Chairperson, one Vice-Chairperson and not more than six other Members. While the term of office of the Chairperson is five year or till he attains the age of 70 years, whichever is earlier, the term of office of Vice Chairperson and other member of tribunal shall be co-terminus with the adjudication of the water dispute.
- The Bill also provides for the appointment of Assessors to provide technical support to the tribunal. They shall be appointed from amongst experts serving in the Central Water engineering Service not below the rank of Chief Engineer.
- The total time period for adjudication of dispute has been fixed at maximum of four and half years. The decision of the Tribunal shall be final and binding with no requirement of publication in the official Gazette.
- The Bill also proposes to introduce mechanism to resolve the dispute amicably by negotiations, through a Dispute Resolution Committee (DRC) to be established by the Central Government consisting of relevant experts, before such dispute is referred to the tribunal.
- The Bill also provides for transparent data collection system at the national level for each river basin and for this purpose, an agency to maintain data-bank and information system shall be appointed or authorized by Central Government.

#### Background:

Inter-state river water disputes are on the rise on account of increase in water demands by the States. **The Inter State Water Dispute Act, 1956** which provides the legal framework to address such disputes, suffers from many drawbacks. Under this Act, a separate Tribunal has to be established for each Inter State River Water Dispute. Only three out of eight Tribunals have given awards accepted by the States, while Tribunals like Cauvery and Ravi Beas have been in existence for over 26 and 30 years respectively without any award. Delays are on account of **no time limit** for adjudication by a Tribunal, **no upper age limit** for the Chairman or the Members, work getting stalled due to occurrence of any **vacancy** and **no time limit for publishing the report** of the Tribunal.

## Govt to launch pilot scheme to promote ornamental fishery

The Department of Animal Husbandry, Dairying and Fisheries has envisaged a programme to unlock the potential of country's ornamental fisheries sector. In this regard, the government will launch a pilot scheme for promoting ornamental fisheries sector with an outlay of Rs 61.89 crore to meet rising demand in domestic and export markets.

### Key facts:

- The project will be implemented in eight states — Assam, West Bengal, Odisha, Maharashtra, Gujarat, Karnataka, Tamil Nadu and Kerala, the Agriculture Ministry said in a statement.
- The pilot project will focus on creating an enabling environment for a sustainable and holistic development of ornamental fisheries for the socio-economic development of the people involved in this activity as well as for exports.
- The thrust areas have been identified for enhancing ornamental fisheries production through cluster-based farming and conservation of natural resources, both inland and marine, through habitat restoration, the statement said.
- The major objectives are: (i) to promote ornamental fish culture with cluster-based approach (ii) to augment ornamental fisheries trade and export earnings (iii) to create employment opportunities for the rural & periurban population and (iv) use of modern technology and innovation to make ornamental fisheries a thriving activity.
- The pilot project on ornamental fisheries shall be implemented by the **National Fisheries Development Board (NFDB)** through the Fisheries Departments of States/UTs.

### Background:

Ornamental fisheries sector is a sub-sector of the fisheries sector dealing with breeding and rearing of coloured fish of both freshwater and marine water.

- In India it is small but vibrant and there is a potential for tremendous growth. About 400 species of marine ornamental fishes and 375 freshwater ornamental varieties are available in various parts of the country.
- Ornamental fisheries generate livelihood and income for the rural and periurban population, especially women and unemployed youth as part-time activities. The low production cost and high returns within a short span of time and the ever growing demand, both in domestic and international markets, etc are the major attractions.

Sources: pib.

## Mission Fingerling to achieve “Blue Revolution”

Recognising the potential and possibilities in the fisheries sector, Government of India has envisaged a program "Blue Revolution" to unlock the country's latent potential through an integrated approach.



### Key facts:

- **Blue Revolution**, in its scope and reach, focuses on creating an enabling environment for an integrated and holistic development and management of fisheries for the socioeconomic development of the **fishers and fish farmers**. Thrust areas have been identified for enhancing fisheries production from 10.79 mt to 15 million mt in 2020-21.

- Greater emphasis will be on **infrastructure** with an equally strong focus on management and conservation of the resources through technology transfer to increase in the income of the fishers and fish farmers.
- Productivity enhancement shall also be achieved through employing the best global innovations and integration of various production oriented activities such as: Production of quality fish seeds, Cost effective feed and adoption of technology etc.
- **Fish Fingerling production** is the single most important critical input visualised to achieve fish production targets under the Blue Revolution. It need to establish more hatchery to produce Fry/PL required for different categories of water bodies.
- The Department has identified 20 States based on their potential and other relevant factors to strengthen the Fish Seed infrastructure in the country.
- This program with a total expenditure of about Rs. 52000 lakh will facilitate the establishment of hatcheries and Fingerling rearing pond to ensure the fish production of 426 crores fish fingerling, 25.50 crores Post Larvae of shrimp and crab in the country.

Sources: pib.

## Launch of Trade Infrastructure for Export Scheme (TIES)

The government has launched the Trade Infrastructure for Export Scheme (TIES). The Scheme is focussed on addressing the needs of the exporters. The scheme replaces a centrally sponsored scheme — Assistance to States for creating Infrastructure for the Development and growth of Exports (ASIDE).

### About TIES:

The objective of the proposed scheme is to **enhance export competitiveness by bridging gaps in export infrastructure, creating focused export infrastructure, first mile and last mile connectivity for export-oriented projects and addressing quality and certification measures.**

- The Central and State Agencies, including **Export Promotion Councils**, Commodities Boards, SEZ Authorities and Apex Trade Bodies recognised under the **EXIM** policy of Government of India; are eligible for financial support under this scheme.
- The Central Government funding will be in the form of **grant-in-aid**, normally not more than the equity being put in by the implementing agency or 50% of the total equity in the project. (In case of projects located in North Eastern States and Himalayan States including J&K, this grant can be upto 80% of the total equity). The grant in aid shall, normally, be subject to a ceiling of Rs 20 Cr for each infrastructure project.
- The implementing agencies shall provide details of the financing tie-ups for the projects which will be considered before approval of the project. Disbursement of funds shall be done after financial closure is achieved.
- The scheme would provide assistance for setting up and up-gradation of infrastructure projects with overwhelming export linkages like the Border Haats, Land customs stations, quality testing and certification labs, cold chains, trade promotion centres, dry ports, export warehousing and packaging, SEZs and ports/airports cargo terminuses.

Sources: pib.

## National Health Policy 2017

The National Health Policy, 2017, was recently approved by the Union Cabinet, two years after a draft copy of the bill was circulated among stakeholders.

- After considering suggestions from the public, state governments and others, the new policy will replace the previous one, which was framed 15 years ago in 2002.

- The policy, which aims at providing healthcare in an “assured manner” to all, will address current and emerging challenges arising from the ever changing socio-economic, technological and epidemiological scenarios.

### **Key highlights:**

- The government aims in shifting focus from “sick-care” to “wellness”, by promoting prevention and well-being.
- It intends on gradually increasing public health expenditure to 2.5% of the GDP.
- It aims to strengthen health systems by ensuring everyone has access to quality services and technology despite financial barriers. The policy proposes increasing access, improving quality and reducing costs. It proposes free drugs, free diagnostics and free emergency and essential healthcare services in public hospitals.
- It focusses on primary health care: The policy advocates allocating two-thirds (or more) of resources to primary care. It proposes two beds per 1,000 of the population to enable access within the golden hour (the first 60 minutes after a traumatic injury).
- It aims to reduce morbidity and preventable mortality of non-communicable diseases (NCDs) by advocating pre-screening.
- It promotes ‘Make in India’ initiative by using drugs and devices manufactured in the country.
- It highlights AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy) as a tool for effective prevention and therapy that is safe and cost-effective. It proposes introducing Yoga in more schools and offices to promote good health.
- It proposes reforming medical education.
- The policy also lists quantitative targets regarding life expectancy, mortality and reduction of disease prevalence in line with the objectives of the policy.

### **Key targets:**

- Increase Life Expectancy at birth from 67.5 to 70 by 2025.
- Reduce infant mortality rate to 28 by 2019.
- Reduce Under Five Mortality to 23 by 2025.
- Achieve the global 2020 HIV target (also termed 90:90:90; 90% of all people living with HIV know their HIV status, 90% of all people diagnosed with HIV infection receive sustained antiretroviral therapy and 90% of all people receiving antiretroviral therapy will have viral suppression).
- To reduce premature mortality from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases by 25% by 2025.

Sources: the hindu.

## **HIV patients unhappy with Bill**

The long-awaited HIV Bill, a crucial public health legislation guaranteeing equal rights to India’s HIV community, was recently passed by the Rajya Sabha. The bill seeks to end discrimination and ensure equality for people living with HIV. The bill seeks to bring legal accountability to prohibit discrimination against the HIV community and instead promotes equality while accessing healthcare, acquiring jobs, renting houses or in educational institutions in the public and private sectors.

### **Key provisions in the bill:**

- Provisions related to the role of governments:** Under the Bill, central and state governments are obliged to provide for anti-retroviral therapy (ART) and management of opportunistic infections (infections that take

- advantage of weakness in the immune system and occur frequently). The bill also prohibits specific acts of discrimination by the state, or any other person, against HIV-positive people, or those living with such people.
- **Provisions related to discrimination:** The Bill lays down penal provisions for any discrimination practised against a person with HIV/AIDS and breach of confidentiality. The protection mandated in the Bill extends to the fields of employment, healthcare services, educational services, public facilities, property rights, holding public office, and insurance. It also provides for confidentiality of HIV-related information and makes it necessary to get informed consent for undertaking HIV tests, medical treatment and research.
  - **Provisions related to ombudsman:** The bill also provides for an ombudsman. According to the provisions of the Bill, an ombudsman shall be appointed by each state government to inquire into complaints related to the violation of the Act and the provision of health care services. The ombudsman shall submit a report to the state government every six months stating the number and nature of complaints received, the actions taken.
  - **Provisions related to guardianship:** Provisions related to guardianship are also specified. 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. The guardianship will apply in matters relating to admission to educational establishments, operating bank accounts, managing property, care and treatment, amongst others.
  - **Role of courts:** Cases relating to HIV positive persons shall be disposed off by the court on a priority basis. In any legal proceeding, if an HIV infected or affected person is a party, the court may pass orders that the proceedings be conducted (a) by suppressing the identity of the person, (b) in camera, and (c) to restrain any person from publishing information that discloses the identity of the applicant. When passing any order with regard to a maintenance application filed by an HIV infected or affected person, the court shall take into account the medical expenses incurred by the applicant.

### **Contentious clauses in the Bill:**

India's HIV community, however, confessed itself 'disappointed' as the Bill places an obligation on State governments to provide treatment "as far as possible", making it weak and open to interpretation.

### **Background:**

There are approximately 21 lakh persons estimated to be living with HIV in India and the percentage of patients receiving anti-retroviral therapy (ART) treatment currently stands at a mere 25.82% as against the global percentage of 41%, according to the 2015 Global Burden of Diseases (GBD).

Sources: the hindu.

## **Amendment to 'The Right of Children to Free and Compulsory Education Act, 2009'**

The Union Cabinet has approved the amendment to Right of Children to Free and Compulsory Education (RTE) Act, 2009.

### **Key facts:**

- The amendments are aimed at ensuring that all teachers, in position as on 31st March, 2015, acquire the minimum qualifications prescribed by the academic authority to extend the period for such training for four years up to 31st March, 2019.
- This will enable the in-service untrained elementary teachers to complete their training and ensure that all teachers at the elementary level in the country have a certain minimum standard of qualifications.
- This would also ensure that all Teachers would attain minimum qualifications as considered necessary to maintain the standard of teaching quality. This would ultimately result in improvement in overall quality of teachers, teaching processes and consequently learning outcomes of children.

- This will also reinforce the Government's emphasis on improvement of quality of elementary education.

### **Background:**

The [Right of Children to Free and Compulsory Education \(RTE\) Act, 2009](#), is effective from 1st April, 2010. It envisages free and compulsory elementary education to every child in the age group of 6-14 years.

The Provision to Section 23(2) of the Act specifies that all teachers at elementary level who, at the commencement of this Act, did not possess the minimum qualifications as laid down under the RTE Act, need to acquire these within a period of five years i.e., 31st March, 2015. However, several State governments have reported that out of a total number of 66.41 lakh teachers at the elementary level, 11.00 lakh are still untrained (of this, 5.12 lakh are in Government and Aided Schools and 5.98 lakh are in private schools).

Sources: the hindu.

## **Law coming to enforce dam safety regulations**

The Centre is contemplating an institutional mechanism to improve safety in India's 5300-odd dams. The new law, which has been vetted by the Union Law Ministry and will now go to the Union Cabinet for approval.

- It proposes a Central authority and State-level bodies that will enforce regulation. Dam and project proponents falling short could face a fine, though they are unlikely to face imprisonment.

### **Need for the new law:**

- There are around 4900 large dams in India and several thousand smaller ones. About 300 are in various stages of construction. However, large reservoirs and water storage structures, in the past few decades, are not seen as a model of safety.
- Currently, guidelines in this regard are not effectively enforced by the States. A recent analysis of the state of India's dams found that half of them did not meet contemporary safety standards.

Sources: the hindu.

## **Emission Norms: Supreme Court Tells Automobile Firms Not To Delay BS-IV Roll Out**

The Supreme Court has asked automobile companies not to frustrate the government's initiative to check increasing levels of pollution by selling BS-III vehicles which they are holding in stock.

### **What's the issue?**

Companies have been seeking permission to sell their existing stock of BS-III vehicles even after Bharat Stage-IV emission norms come into force from April 1. The motor companies are holding a stock of 8,24,275 BS-III vehicles, which includes 96,724 commercial vehicles, 6,71,308 two-wheelers, 40,048 three-wheelers and 16,198 cars.

### **What has the Court said?**

The Supreme Court, which is hearing pleas of automobile manufacturers, indicated that either it will ban registration of such vehicles or impose costs to compensate for the health hazards created by pollution.

### **What has the government said?**

The Centre has come out in support of auto manufacturers and urged the Supreme Court to allow the companies to sell their existing stock of BS-III vehicles even after Bharat Stage-IV emission norms come into force from April 1.

The government has argued for the case on the following grounds:

- The existing rules that govern migration of emission standards provide only for halting of manufacturing of vehicles that comply to the previous norms.

- These rules have not been challenged or objected to at any stage.
- The same set of rules were followed when the country moved on to BS III emission norms.
- Sale and registration of BS III vehicles can continue as these vehicles do not become redundant. They can very well be run on BS IV fuel.
- The stock of BS III vehicles that remain unsold account for a tiny fraction of the 19 crore vehicles already plying on the roads.

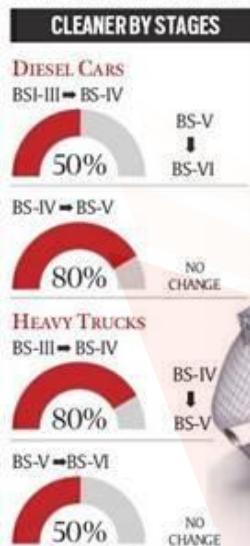
## The upgrade from BS-IV to BS-VI: what needs to be done

BS-V requires a specific fitment in the vehicle's engine. BS-VI needs one more, and each comes with issues that need fixing

### FOR BS-V: DIESEL PARTICULATE FILTER, OR DPF

**WHAT IS IT?** DPF is a cylinder mounted vertically in the engine compartment. Its function is to remove particulate matter, or soot, from the diesel exhaust. It needs temperatures of 600 degrees Celsius, difficult in Indian conditions.

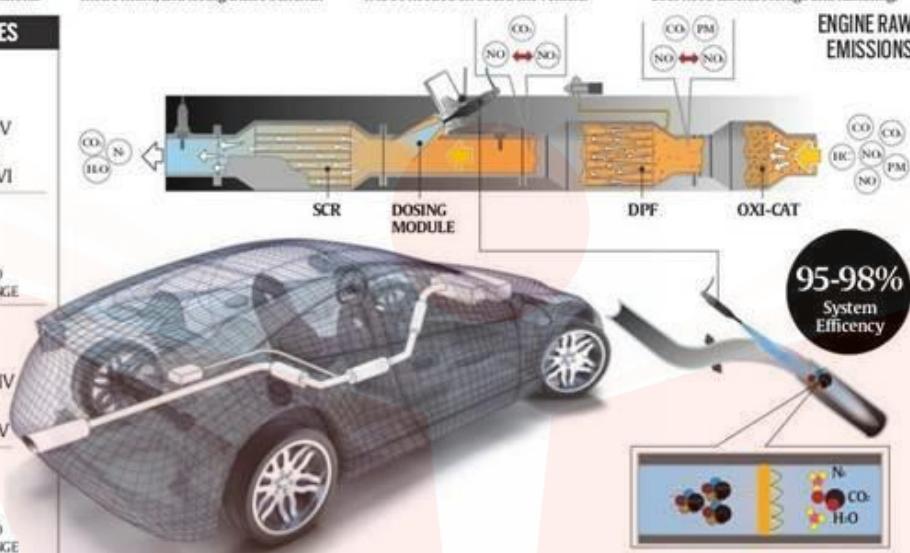
**WHAT'S THE PROBLEM?** Small cars, popular in India, have limited bonnet space, and will require a major redesign to accommodate DPF. But a bigger bonnet may result in the car breaching the sub-4-metre mark, and losing excise benefits.



### FOR BS-VI: SELECTIVE CATALYTIC REDUCTION TECHNOLOGY

**WHAT IS IT?** An SCR module reduces the oxides of nitrogen in the engine exhaust by injecting an aqueous solution called AUS 32 into the system. AUS 32 contains ammonia, for which a separate container will be needed on board the vehicle.

**WHAT'S THE PROBLEM?** An anti-defect mechanism is required to put the vehicle in the limp mode if AUS 32 is not refilled. Nationwide infrastructure will be needed for supply of AUS 32, which is safe, but does need careful storage and handling.



### ROADMAP FROM BS-IV To BS-VI

#### BS-IV

BY APRIL 1, 2015

■ All of North India (J&K except Leh & Kargil, Punjab, Haryana, HP, Uttarakhand, Delhi and bordering districts of Rajasthan and Western UP; All of Goa, Kerala, Karnataka, Telangana, Odisha; UTs of Daman & Diu, Dadra & Nagar Haveli, Andaman & Nicobar; parts of Maharashtra and Gujarat.)

#### FUEL SUPPLY COMMENCED

BY APRIL 1, 2016

■ Corridor spanning highway link through Gujarat and Rajasthan linking North India to ports on west coast.

#### FUEL SUPPLY COMMENCED

BY APRIL 1, 2017

■ Rest of the Country

#### BS-V SKIPPED

#### BS-VI

BY APRIL 1, 2020

As per order issued by the Ministry of Road Transport and Highways on May 22, 2015, all oil marketing companies and other stakeholders are required to switch directly from BS-IV to BS-VI quality fuel.

SOURCE: Report of the Expert Committee on Auto Fuel Vision & Policy 2025, Government of India, 2014

Sources: the hindu.

## Mental Healthcare Bill

The Parliament has passed the '[Mental Healthcare Bill](#)' in the Lok Sabha that decriminalizes suicide attempt by mentally ill people and provides services for people with mental illness.

**Aim:** The bill aims to provide for mental healthcare and services for persons with mental illness and ensure these persons have the right to live a life with dignity by not being discriminated against or harassed.

### Definition:

The Bill defines "mental illness" as a substantial disorder of thinking, mood, perception, orientation or memory that grossly impairs judgment, behaviour, capacity to recognise reality or ability to meet the ordinary demands of life, mental conditions associated with the abuse of alcohol and drugs, but does not include mental retardation which is a condition of arrested or incomplete development of mind of a person, specially characterised by subnormality of intelligence.

Mental illness shall be determined in accordance with such nationally or internationally accepted medical standards.

### MENTAL HEALTH CARE BILL 2013 V/S NMHA 1987

○ Mental Health Care Bill 2013	○ National mental health act 1987
○ <b>Mental illness-</b> definition	○ means a person who is in need of treatment by reason of any mental disorder other than mental retardation.
○ to protect, promote and fulfill the rights of PMI	○ to their property, affairs & for matters connected with pt.
○ Concept of MHE	○ Psychiatric hospital & Psychiatric Nursing home
○ CMHAs , SMHAs , MHRC , MHRB authorities	○ Government authorities
○ Advanced directives	○ Not included
○ Nominated representative	○ Guardian or Manager
○ Main decision by PMI or NR.	○ Main decision by judge

## Important provisions under the Mental Healthcare Bill:

- **Rights of persons with mental illness:** This provision states that every person will have the right to access mental healthcare from services which are operated or funded by the government. It also includes good quality, easy and affordable access to services. It also provides for the right to equality of treatment, seeks to protect such persons from inhuman treatment, access to free legal services, their medical records, and the right to complain in the event of regarding deficiencies in provisions.
- **Advance Directive:** This provision empowers a mentally-ill person to have the right to make an advance directive that explains how she/he wants to be treated for the requisite illness and who her/his nominated representative shall be. This directive has to be vetted by a medical practitioner.
- **Mental Health Establishments:** This provision states that every mental health establishment has to be registered with the respective Central or State Mental Health Authority. For registration, the concerned establishment needs to fulfill different criteria as mentioned in the Bill.
- **Procedures:** The bill also outlines the procedure and process for admission, treatment and subsequent discharge of mentally ill persons.
- **Mental Health Review Commission and Board:** This is a quasi-judicial body responsible for reviewing procedure for making advance directives. It will also advise the government on the protection of mentally ill persons' rights. It further states that the body in agreement with the state governments constitute Mental Health Review Boards in states' districts.
- **Decriminalising suicide and prohibiting electro-convulsive therapy:** The most notable of all is this provision effectively decriminalises suicide attempt under the Indian Penal Code by mentally ill persons by making it non-punishable. Electro-convulsive therapy, which is allowed only with the use of anaesthesia, is however out of bounds for minors.

### Background:

India is a signatory to the Convention on the Rights of Persons with Disabilities, an international human rights treaty of the United Nations. Around 6-7% of India's population suffers from some kind of mental illnesses.

Sources: the hindu. indian express

## 'Triple talaq not in SC purview'

The All India Muslim Personal Law Board (AIMPLB) recently told the Supreme Court that the court had no jurisdiction to hear petition challenging the practices of triple talaq, nikah halala and polygamy.

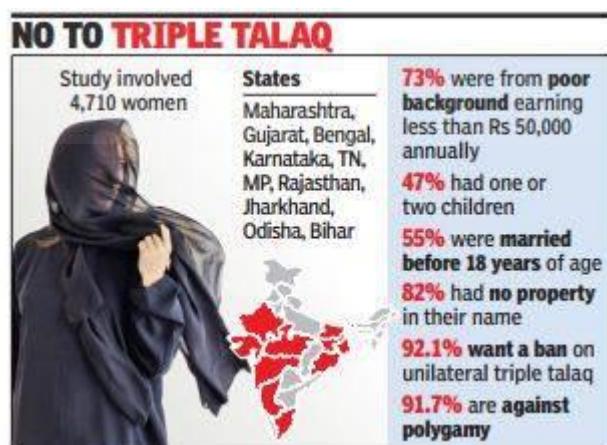
### Why?

The Board said the validity of Mohammedan Law, founded essentially on the Koran and sources based on it, could not be tested on the particular provisions of the Constitution.

It said, the petitions, filed by a plethora of Muslim women against the practices, were misconceived. The preamble of the Constitution clearly enshrines values of liberty of thought, expression, belief, faith and worship," the AIMPLB argued in an affidavit filed before the court.

### Background:

The government had earlier opposed the AIMPLB stand in court that triple talaq was intended to save the family from delayed justice in conventional courts and to avoid mud-slinging in public.



- The Board had contended that concern and sympathy for women lay at the core of polygamy. That it was a better option for a “barren” wife to allow her husband to marry a second time than let him indulge in a “mistress”.
- The Centre had countered that **in a secular democracy, any practice which left women socially, financially or emotionally vulnerable or subject to the whims and caprice of men folk was incompatible with the letter and spirit of Articles 14 and 15.”**

#### **Way ahead:**

The Muslim body has called for judicial restraint as the issues in the petitions before the court fell within the legislative domain.

#### **What is triple talaq?**

‘Triple Talaq’ is a procedure of **divorce under the Sharia Law which is a body of the Islamic law. Under this, a husband can divorce his wife by pronouncing ‘Talaq’ thrice.**

#### **Why triple talaq should be abolished?**

- In spite of protests by Muslim women and activists world-wide the procedure is still prevalent in most countries.
- There are several instances where ‘triple talaq’ has enabled husbands to divorce their wives arbitrarily, devoid of any substantiation.
- According to a study, 92% of Muslim women in India want oral triple talaq to go.
- Oral talaq or ‘triple talaq’ delivered through new media platforms like Skype, text messages, email and WhatsApp have become an increasing cause of worry for the community.
- The ‘triple talaq’ has been abolished in 21 countries including Pakistan, but is still prevalent in India.
- The Centre reasons that these practices are against constitutional principles such as gender equality, secularism, international laws etc.
- The government also argues that when these practices are banned in Islamic theocratic countries, the practices could have absolutely no base in religion and are only prevalent to permit the dominance of men over women.

Sources: the hindu, times of india

## **6 Crore Soil Health Cards Distributed**

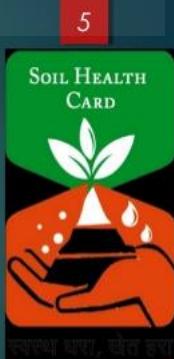
The government recently informed the Lok Sabha that so far **against the target of 14 crore cards distribution, 6 crore cards have been distributed** and remaining cards are under printing.

- Adequate funds have been released to all States, funds amounting to Rs 23.89 crore, Rs 96.44 crore and Rs 126.47 crore have been released during 2014-15, 2015-16 and 2016-17 respectively under the scheme.

#### **About the Soil Health Card Scheme:**

It is a scheme to provide every farmer a [Soil Health Card](#) in a **Mission mode**. It is a scheme under which the **Central Government provides assistance to State Governments for setting up Soil Testing Laboratories for issuing Soil Health Cards to farmers.**

### **What is a Soil Health Card (SHC) ?**



5

► Soil health card is field-specific detailed report of soil fertility status and other important soil parameters that affect crop productivity

► It also provides an advisory on soil test based use of fertilizers and amendments



INDIAN AGRICULTURAL RESEARCH INSTITUTE, NEW DELHI-110012

## **Implementation:**

- The scheme will be implemented in all states to promote soil testing services, issue of soil health cards and development of nutrient management practices.
- Under the scheme, **State Governments should adopt innovative practices like involvement of agricultural students, NGOs and private sector in soil testing, determining average soil health of villages, etc., to issue Soil Health Cards.**
- Under the scheme, the **state governments are also required to prepare yearly action plan** on the issue and the cost will be shared in the ratio of **75:25** between the Centre and states.

## **What are soil health cards?**

- A Soil Health Card is used to **assess the current status of soil health** and, when used over time, to determine changes in soil health that are affected by land management.
- A Soil Health Card displays **soil health indicators and associated descriptive terms**. The indicators are typically based on farmers' practical experience and knowledge of local natural resources.
- The card lists soil health **indicators that can be assessed without the aid of technical or laboratory equipment**.
- The card, which will carry **crop-wise recommendation of fertilisers** required for farm lands, will help farmers identify health of soil and judiciously use soil nutrients.

Sources: pib.

## **Centre may expand social security net**

The centre may consider extending social security benefits to volunteers under anganwadi, mid-day meal and Accredited Social Health Activists (Asha) schemes.

- A proposal in this regard was recently made by the **EPFO to the Labour ministry**. It proposed a lower contributory rate of 10% of income towards the Employees' Provident Fund be allowed for scheme workers as against 12% contribution stipulated for the organised workers.

## **Background:**

According to estimates, there are 14 lakh Anganwadi workers, 12 lakh Anganwadi helpers, 25.50 lakh mid-day meal workers in the country. Providing social security coverage to the unorganised workers has been one of the key demands of the central trade unions. **There is no mandatory social security cover for such scheme workers at present.**

## **Way ahead:**

In this regard, the Centre can issue a notification to cover any class of establishments with a lower contributory rate under the Employees' Provident Fund and Miscellaneous Provisions Act, 1952.



## **About EPFO:**

The [Employees' Provident Fund Organisation](#), a **statutory body**, is one of the largest social security organizations in India in terms of volume of financial transactions undertaken and number of covered beneficiaries. It works under the overall aegis of the **Ministry of Labour and Employment**.

Sources: the hindu.

## WHO's First-Ever List Of The Dirty Dozen Superbugs

The World Health Organisation (WHO) has published its first ever list of antibiotic-resistant 'priority pathogens' - a catalogue of 12 families of bacteria that pose the greatest threat to human health. This is bad news for India as most of these 12 superbugs are present in the country.

- The list was drawn up to promote research and development of new antibiotics. The move was part of efforts to address the problem of growing global resistance to antimicrobial medicines.

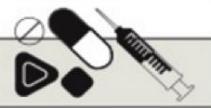
### Key facts:

- The WHO list of drug-resistant bacteria is divided into three categories. The most critical group includes multidrug-resistant bacteria that pose a particular threat in hospitals, nursing homes and among patients whose care requires devices such as ventilators and blood catheters.
- These include Acinetobacter, Pseudomonas and various Enterobacteriaceae (including Klebsiella, E coli, Serratia and Proteus). They can cause severe and often deadly infections such as bloodstream infections and pneumonia. These bacteria have become resistant to a large number of antibiotics, including carbapenems and third-generation cephalosporins the best available antibiotics for treating multidrug-resistant bacteria.

Sources: et.

### WHO Rings Alarm Bells

World Health Organization asks industry to ramp up efforts to make newer drugs, which can fight antibiotic-resistant bacteria



#### Priority 1 | CRITICAL

**ACINETOBACTER BAUMANNII**  
| An opportunistic bacterium, which affects people with compromised immune system. It has become resistant to all antibiotics, including carbapenem

#### PSEUDOMONAS AERUGINOSA

| It is resistant to carbapenem, a high-end antibiotic. People with compromised immune system are most vulnerable

#### ENTEROBACTERIACEAE

| They are a large family of gram-negative bacteria, which can affect lower respiratory tract and gastrointestinal tract, among others. They are carbapenem resistant

#### Priority 2 | HIGH

**ENTEROCOCCUS FAECIUM** | A common cause of surgical site infection. Enterococcus faecium found to be resistant to vancomycin, another high-end antibiotic

#### STAPHYLOCOCCUS AUREUS

| A leading cause of soft tissue

and skin infections; resistant to most antibiotics

#### HELICOBACTER PYLORI

| A common cause of stomach infections

#### CAMPYLOBACTER SPP

| Leading cause of bacterial food-borne

diarrhoeal disease worldwide

#### SALMONELLA

| It is a known cause for diarrhoea, abdominal cramps and enteric fever

#### NEISSERIA GONORRHOEAE

| Species of bacteria that causes sexually

transmitted infection, gonorrhoea

#### Priority 3 | MEDIUM

**STREPTOCOCCUS PNEUMONIAE** | This 'superbug' causes different types of infection, including ear infections and pneumonia

**HAEMOPHILUS INFLUENZA**  
| A type of bacterium, which can cause infections in people of all ages, like ear and bloodstream infections

**SHIGELLA SPP** | They are gram-negative pathogenic bacteria, which evolved from harmless enterobacterial relatives and may cause devastating diarrhoea upon ingestion

## West Bengal passes Bill to rein in private hospitals

The West Bengal Assembly has passed the West Bengal Clinical Establishments (Registration, Regulation and Transparency Bill) Bill 2017 aimed at overhauling private healthcare and taking stringent measures against health institutions indulging in medical negligence and corrupt practices. The legislation repealed The West Bengal Clinical Establishment (Regulation) Act, 2010.

### Highlights of the Bill:

- The law is aimed at bringing transparency, ending harassment of patients and checking medical negligence in private hospitals and nursing homes. The law also covers clinics, dispensaries and polyclinics.
- The state will set up a regulatory commission to oversee private healthcare facilities, deciding for them what they can charge and deal with complaints from people receiving treatment.
- Under the new law, hospitals must "strictly follow fixed rates" for clinical investigations and facilities, and in the event of any complication requiring a change in course of treatment, hospitals will not be allowed to charge anything extra.
- Curbs have been imposed on measures to realize dues from patients with the law saying that hospitals cannot delay the release of a deceased patient even if the family cannot pay up immediately.

- The law also says victims of accidents will have to be provided care even if he or she cannot immediately pay for it.
- The law reiterates hospitals that received land from the state government will have to provide free treatment to one in five outdoor patients, and one in 10 patients admitted to the hospital, but does not clearly say how compliance is to be audited.

Sources: the hindu.

## U.S. mixed India's plea on reforms in medicine

A month after the 140th World Health Organisation's (WHO) Executive Board meeting, a Freedom of Information Act (FOIA) response has revealed that the United States government had opposed including agenda items proposed by India, which aimed at reforming medical innovation that currently pump up drug prices to unaffordable levels.

### **What's the issue?**

The Indian government — along with 11 South East Asian countries — had proposed a discussion on an 'Access to Medicines' report by the United Nations High Level Panel that had recommended reforms in the funding of biomedical research and development.

However, the set of documents released by Knowledge Ecology International (KEI), a not for profit organisation that gives technical advice to governments, reveals that both the United States and the WHO opposed including the proposal by India. They observed that they were mainly concerned about the narrow mandate of the recommendations.

### **Background:**

The U.N. Access to Medicines report had recommended solutions for remedying the policy incoherence between justifiable rights of inventors, trade rules and global public health targets. The report recommended that "governments and the private sector must refrain from explicit or implicit threats, tactics or strategies that undermine the right of WTO Members to use TRIPS flexibilities."

- The U.N. report says there is a need for an RD treaty and it recommended reforms in the area of biomedical R&D.
- The 11 member-states — Bangladesh, Bhutan, South Korea, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand, and Timor-Leste — as well as Brazil, Iran, and South Africa supported the inclusion of the agenda item.
- The delays by WHO to place the UN HLP recommendations on the agenda of the WHO's EB and subsequently at the World Health Assembly have drawn widespread criticism from Asian civil society organisations.

Sources: the hindu.

## Low MR vaccine coverage in TN a worry

According to a report, only about 50% of children aged nine months to 15 years in Tamil Nadu have been vaccinated by the measles-rubella (MR) combination vaccine since the campaign was launched.

**Experts say, unless and otherwise the vaccination coverage is increased to over 90%, there is a high possibility that the State would witness more rubella infections among older age groups. Why?**

- It is because the present situation would lead to an increase in the number of newborns with congenital rubella syndrome (CRS) — hearing impairments, eye and heart defects and brain damage — when women get infected with rubella virus during the early stages of pregnancy.
- When the rubella childhood immunisation coverage in communities is sub-optimal, there will be more number of CRS cases than before as the infection shifts to an older age group. This is called the paradoxical increase in CRS.

There will be fewer CRS cases initially (one-three years) after immunisation. But in four-five years, as the infection shifts to an older age group, there will be more CRS cases than before.

### Why worry about this?

Greece and Brazil witnessed the paradoxical increase in CRS due to shift of age distribution of rubella cases. In 1993, a major rubella epidemic took place [in Greece] affecting women of child-bearing age at a rate higher than in previous years. Following the rubella epidemic, Greece saw the largest number of babies born with CRS.

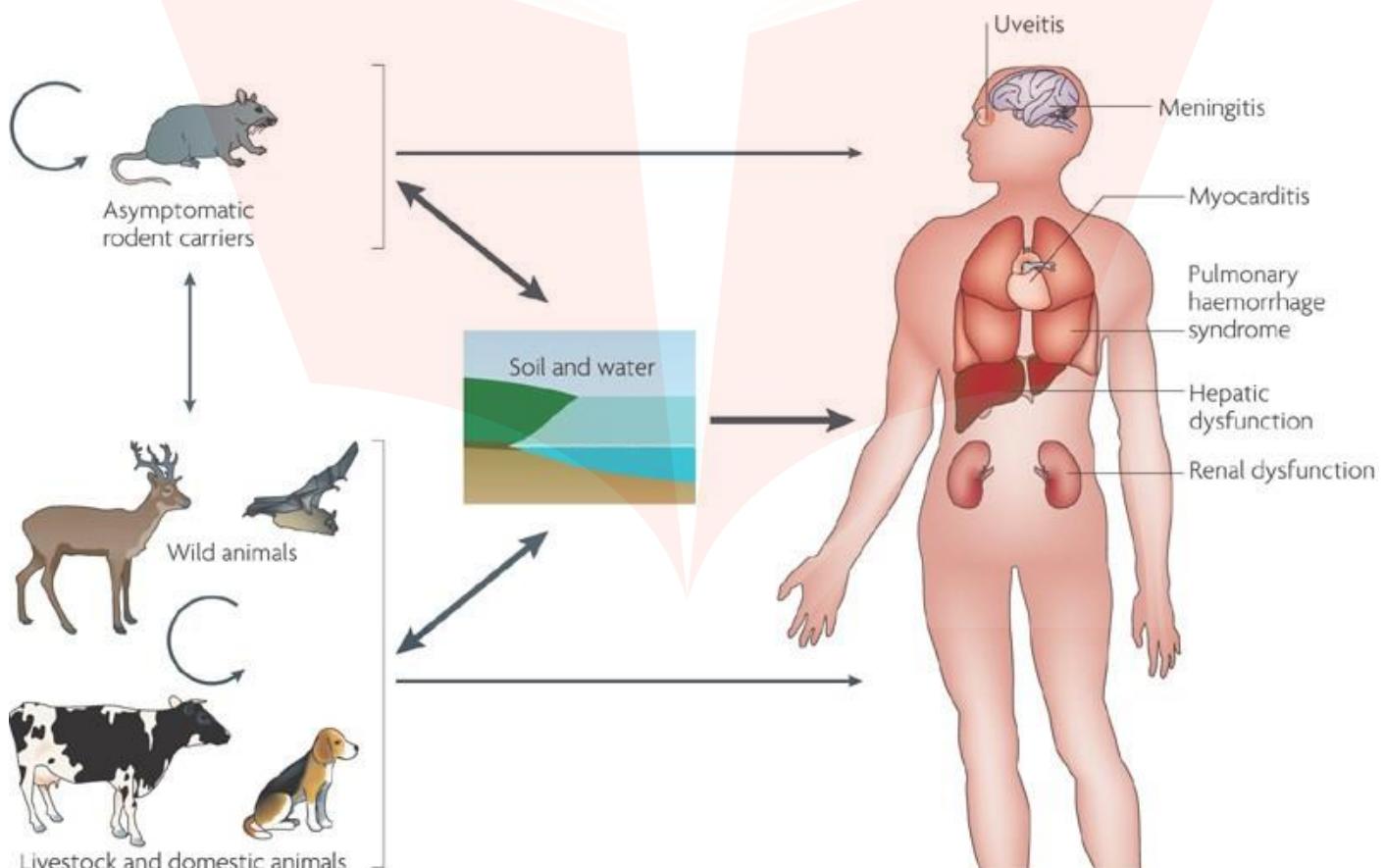
- In Greece, during the later 1970s and the 1980s, rubella vaccination coverage remained “consistently” below 50% and did not reach 50-60% before 1990. As a result, the proportion of pregnant women susceptible to rubella showed a steady increase — from 12% in 1971-75 to 24% in 1984-89 to 36% in 1990-91.
- In 1993, the mean age of patients with rubella was 17 years and 64% were 15 years or older.

### Background:

Congenital rubella syndrome (CRS) can occur in a developing fetus of a pregnant woman who has contracted rubella, usually in the first trimester. If infection occurs 0–28 days before conception, the infant has a 43% risk of being affected. If the infection occurs 0–12 weeks after conception, the risk increases to 51%. If the infection occurs 13–26 weeks after conception, the risk is 23% of the infant being affected by the disease. Infants are not generally affected if rubella is contracted during the third trimester, or 26–40 weeks after conception. Problems rarely occur when rubella is contracted by the mother after 20 weeks of gestation and continues to disseminate the virus after birth.

Sources: the hindu.

## Battling Leptospira at the genome level



Nature Reviews | Microbiology

To improve the odds of controlling Leptospirosis by understanding the genetic determinants of Leptospira pathogenesis that researchers at the Yale School of Public Health (YSPH) and the J. Craig Venter Institute have collaborated in a major genome-sequencing effort for 20 Leptospira species.

- There are lessons for India. In the summer and rainy seasons of 2015, leptospirosis, a dangerous, neglected tropical disease, struck in multiple cities of India. In Mumbai, the toll was high — at least 18 people reportedly succumbed to the zoonotic disease, also known colloquially as “rat fever” for its association with the urine of rodents among several host species.

#### **About Leptospirosis:**

Leptospirosis is a bacterial disease that affects humans and animals. It is caused by bacteria of the genus Leptospira. In humans, it can cause a wide range of symptoms, some of which may be mistaken for other diseases. Some infected persons, however, may have no symptoms at all.

- The bacteria that causes leptospirosis is spread in the urine of infected animals, including rodents, wildlife, dogs, and livestock.
- It does not spread from person to person.
- Leptospirosis is treated with antibiotics. The disease can lead to life-threatening complications like renal failure, hypotension and hemorrhage. Severe or untreated leptospirosis can lead to damage of the organs and in rare cases.

Sources: the hindu.

## **IMA wants doctors to report any unusual symptoms they notice in patients**

Doctors across the country will now have to report not just notifiable diseases to the local health authorities but also any unusual symptoms that cannot be explained they see in their patients.

- The Indian Medical Association (IMA), which has been aggressively supporting timely notification of notifiable diseases, now wants all doctors to start reporting any unusual symptoms that they notice in their patients. The association has been sending out mails to over two lakh member-doctors across the country.

#### **Need for such move:**

This was essential especially in the wake of several new infections spreading rapidly. With blurring of international boundaries and increasing travel, there is a threat of global spread of any infectious disease. Doctors alone can no longer be responsible for public health and prevention and control of outbreaks also require commitment on the part of policymakers, administrators and all other stakeholders.

#### **About IMA:**

The Indian Medical Association (IMA), is a **national voluntary organisation of Doctors of Modern Scientific System of Medicine in India**, which looks after the interest of doctors as well as the well being of the community at large. It was established in 1928 as the All India Medical Association, renamed “Indian Medical Association” in 1930. It is a society registered under The Societies Act of India.

The **Indian Medical association is a founder member of the World Medical Association.**

Sources: the hindu.

## **‘Tests useful to find cause of stillbirth’**

A U.S. study has found that two tests are particularly effective in determining the cause of a stillbirth, a death of a foetus at or after 20 weeks of gestation.

## **Key facts:**

- An examination of the placenta helped find a cause in about two-thirds of stillbirths, and a foetal autopsy helped in roughly 40% of cases.
- Genetic testing was the third most useful test, helping to pinpoint a cause 12% of the time.

## **Background:**

Researchers had previously determined that complications during the birth process, including pre-term labour and premature rupture of the amniotic sac, accounted for 30% of stillbirths. Before labour, placental problems were the most common cause of stillbirth, accounting for roughly one-quarter of cases. Genetic conditions or birth defects were responsible for about 14% of stillbirths, infection for 13% and umbilical cord issues another 10%.

## **Stillbirths:**

An estimated 2.6 million third trimester stillbirths occurred in 2015 across the world. Most stillbirths (98%) occur in low and middle income countries.

India continues to be at the top of the table in the rank for number of stillbirths in 2015, recording 5,92,100, followed by Nigeria, Pakistan, China and Ethiopia. Cultural taboos and superstitions often take the blame in the case of stillbirth.

## **Trends:**

Worldwide, the number of stillbirths has declined by 19.4% between 2000 and 2015, representing an annual rate of reduction (ARR) of 2%. This reduction noted for stillbirths is lower than that noted for maternal mortality ratio (AAR=3.0 %) and under 5 mortality rate (ARR= 3.9 %), for the same period.

## **Cause of stillbirths:**

- It is reported that, in 18 countries with reliable data, congenital abnormalities account only for a median of 7.4% of stillbirths. Many disorders associated with stillbirths are potentially modifiable and often coexist — maternal infections, non-communicable diseases, nutrition, lifestyle factors and maternal age older than 35 years.
- Prolonged pregnancies, when the baby is not born after 42 weeks of gestation, contribute to 14% of stillbirths.
- Causal pathways for stillbirth frequently involve impaired placental function, either with growth restriction, or preterm labour or both.

## **Way ahead:**

It should also be noted that less than 5% of neonatal deaths and even fewer still births are registered. Hence, it is necessary to maintain meticulous records of all births and deaths (maternal and foetal) in order to increase the availability of data, rationalising that while data alone will not help save lives, it would certainly indicate a way to target interventions to reach more than 7,000 women every day worldwide who experience the reality of stillbirth.

Sources: the hindu.

## **U.K. grants doctors first licence to create 3-parent babies**

Britain's fertility regulator has granted doctors the first U.K. licence to create babies using a three-parent IVF technique designed to prevent inherited genetic diseases.

- The licence means the first child created in Britain using the mitochondrial pronuclear transfer technique could be born before the end of this year.

## **Background:**

Britain's Parliament voted last year to change the law to allow the treatments if and when they were ready for licensing. But the regulator, the Human Fertilisation and Embryology Authority (HFEA), still had to approve each clinic and each patient on an individual basis before the treatment can be carried out.

The world's first and so-far only known mitochondrial transfer baby was born in 2016 after U.S. doctors working at a clinic in Mexico helped a Jordanian couple conceive using the treatment.

### About the technique:

The treatment is known as "three-parent" IVF because the babies, born from genetically modified embryos, would have DNA from a mother, a father and from a woman donor.

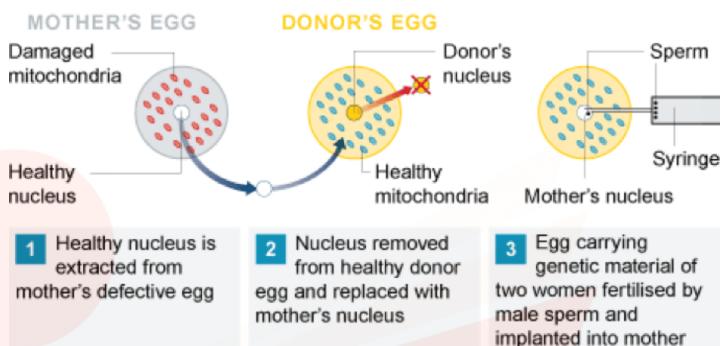
- The technique involves intervening in the fertilisation process to remove mitochondria, which act as tiny energy-generating batteries inside cells, and which — if faulty — can cause fatal heart problems, liver failure, brain disorders, blindness and muscular dystrophy.
- It is designed to help families with mitochondrial diseases — incurable conditions passed down the maternal line that affect around one in 6,500 children worldwide.

### Why is it so controversial?

Some people don't like the idea of a baby having three biological parents, and argue that mitochondrial DNA goes some way to shaping important characteristics, such as personality. But the scientific consensus is that swapping mitochondria is similar to changing a battery — it's unlikely to have much, if any, influence over a person's behaviour.

- Others have argued that the technique is unnecessary. After all, it won't help those who have already been born with mitochondrial diseases. Parents often don't find out they are carriers of these diseases until they give birth to sick children. And those who do know they could pass on a disease have other options, such as using a donor egg. The technique is specifically for people who carry genes for the disease, but want to have a child genetically related to them.
- Another concern is that, by creating a new mix of genetic material, embryologists are creating lasting genetic changes that will be passed down through generations, before we have a chance to find out if they are dangerous. Some argue that this starts us on a slippery slope of germ-line editing — one that could eventually lead to "designer babies".

### CREATING A THREE-PARENT FAMILY



Sources: the hindu.

## The lowdown on India's plan to eliminate TB by 2025

At the end of 50 years of tuberculosis control activities, the disease remains a major health challenge in India. As per new estimates, the number of new cases every year has risen to 2.8 million and mortality is put at 4,80,000 each year. These figures may go up when the national TB prevalence survey is undertaken in 2017-18. Against this backdrop, the Ministry of Health and Family Welfare, in its national strategic plan for tuberculosis elimination (2017-2025), has set a highly ambitious goal of "achieving a rapid decline in burden of TB, morbidity and mortality while working towards elimination of TB by 2025."

### Challenges ahead:

- Though the Revised National Tuberculosis Control Programme (RNTCP) has treated 10 million patients, the rate of decline has been slow.
- Providing universal access to early diagnosis and treatment and improving case detection were the main goals of the national strategic plan 2012-17. But RNTCP failed on both counts, as the Joint Monitoring Mission report of 2015 pointed out.

- Going by the current rate of decline, India is far from reaching the 2030 Sustainable Development Goals — reducing the number of deaths by 90% and TB incidence by 80% compared with 2015.
- The latest report for TB elimination calls for reducing TB incidence from 217 per 1,00,000 in 2015 to 142 by 2020 and 44 by 2025 and reduce mortality from 32 to 15 by 2020 and 3 per 1,00,000 by 2025.

### **What's there in the new plan:**

The TB control programme plans to do away with the strategy of waiting for patients to walk in to get tested and instead engage in detecting more cases, both drug-sensitive and drug-resistant. The emphasis will be on using highly sensitive diagnostic tests, undertaking universal testing for drug-resistant TB, reaching out to TB patients seeking care from private doctors and targeting people belonging to high-risk populations.

- The other priority is to provide anti-TB treatment — irrespective of where patients seek care from, public or private — and ensure that they complete the treatment. For the first time, the TB control programme talks of having in place patient-friendly systems to provide treatment and social support.
- It seeks to make the daily regimen universal; currently, the thrice weekly regimen is followed by RNTCP, and the daily regimen has been introduced only in five States.
- There will be a rapid scale-up of short-course regimens for drug-resistant TB and drug sensitivity testing-guided treatment. In 2013, India “achieved complete geographical coverage” for MDR-TB (multi-drug-resistant tuberculosis) diagnosis and treatment; 93,000 people with MDR-TB had been diagnosed and put on treatment till 2015.
- It envisages a countrywide scale-up of Bedaquiline and Delamanid.
- In a marked departure, the report underscores the need to prevent the emergence of TB in susceptible populations. One such segment is those in contact with a recently diagnosed pulmonary TB.
- Acknowledging that the business-as-usual approach will not get the Health Ministry anywhere close to the goals, it has earmarked critical components that will be addressed on priority. These include sending customised SMSes to improve drug compliance, incentivising private doctors to notify cases and providing free medicines to patients approaching the private sector, facilitating nutritional support to TB patients, including financial support, rewarding States performing well in controlling TB, and using management information systems to monitor all aspects of TB control.

The ultimate impact of this national strategic plan will be transformational improvements in the end TB efforts of India. It plans to take a “detect-treat-prevent-build approach” in its war against TB.

Sources: the hindu.

### **1.04 cr hit by arsenic contamination in Bengal**

A recent report tabled in the Lok Sabha stated that West Bengal has the highest number of arsenic-affected people in the country.

#### **Key facts:**

- According to the report, Bengal topped the list with more than 1.04 crore arsenic-affected persons as on March 4, 2017. Bihar comes second with 16.88 lakh persons, with Assam in third spot with 14.48 lakh victims. The total number of arsenic-affected people in the country is about 1.48 crore.
- There are 83 blocks in eight districts — Bardhaman, Malda, Hooghly, Howrah, Murshidabad, Nadia, North and South 24 Parganas — where ground water is affected by arsenic contamination.

## **Background:**

According to the WHO's guidelines for drinking water quality (2011), the permissible limit of Arsenic in groundwater is .01 mg per litre. However, in India the permissible limit in drinking water has recently been revised from .05 mg per litre to .01 mg per litre.

## **Arsenic in groundwater:**

Arsenic in ground water is a geogenic contaminant i.e. caused by natural geologic processes. Arsenic-containing groundwater in Ganga River basin is hosted by the sediments deposited by the rivers during the late Quaternary or Holocene age (<12 thousand years). Incidence of high arsenic in groundwater reported from various parts of the country, particularly in the Ganga- plains is a serious threat to the health of human being.

- Over the last three decades numerous measures have been initiated which includes alternate arrangement for supply of arsenic free water to the affected populace and providing arsenic removal plants. Arsenic occurrences in ground water in these areas is highly sporadic in nature and all the sources in these areas are not necessarily contaminated.
- Technological options to combat arsenic menace, in groundwater, to ensure supply of arsenic free water, in the affected areas can be in-situ remediation of arsenic from aquifer system, ex-situ remediation of arsenic from tapped groundwater by arsenic removal technologies, use of surface water source as an alternative to the contaminated groundwater source, tapping alternate safe aquifers for supply of arsenic free groundwater or combination of above techniques.

Sources: the hindu.

## **Tamil Nadu in the cycle of drought and floods**

Tamil Nadu is emerging as a State of climate paradoxes with its volatile weather patterns. It's a bitter irony for the State that witnessed unprecedented floods in its north coastal districts in 2015 that pushed its north-east monsoon rainfall to an excess of 52% to now be in the grip of a severe drought. The devastating blow to agriculture and water resources came with 2016 turning out to be one of the driest years.

### **Why this drought?**

- The State was hit by the worst annual rainfall in 140 years as it received just 543 mm of rain against the yearly average of 920 mm. This is the lowest recorded after 1876 when Tamil Nadu registered 534 mm, leaving a shortfall of 42%.
- While a weak La Nina over the equatorial Pacific that followed a year of strong El Nino is cited as one of the reasons for the drought, mismanagement of surface water resources, over-exploitation of groundwater to compensate for the loss of resources in dry waterbodies and the lack of timely policies have pushed the State into a drought.
- Meteorology experts note that the south-west monsoon rainfall often complements or compensates the State's rainfall during the north-east monsoon, which accounts for a major share of the yearly rainfall, though it may not have the same impact as in the neighbouring States. Last year was particularly bad for farmers across all districts as both monsoons failed to bring sufficient rain.
- Population density in many regions of Tamil Nadu, which is higher than other drier regions like Rayalaseema in Andhra Pradesh, also influences the impact of drought.

### **Concerns:**

- The lack of water resources for crops is feared to lead to a shortfall in paddy cultivation, influx from other States and a hike in the prices of essential commodities.

- Experts have raised concerns over the failure to obtain target crop yields, including tree crops, owing to soaring temperatures.
- Drought has dealt farmers a double blow as the paddy crop failure will increase the fodder crisis, hitting livestock production.
- Several parts of the State are already experiencing acute drinking water shortage. Given the climate variability in which rainfall intensity is set to be higher and distribution will be limited to a few days.

#### **Way ahead:**

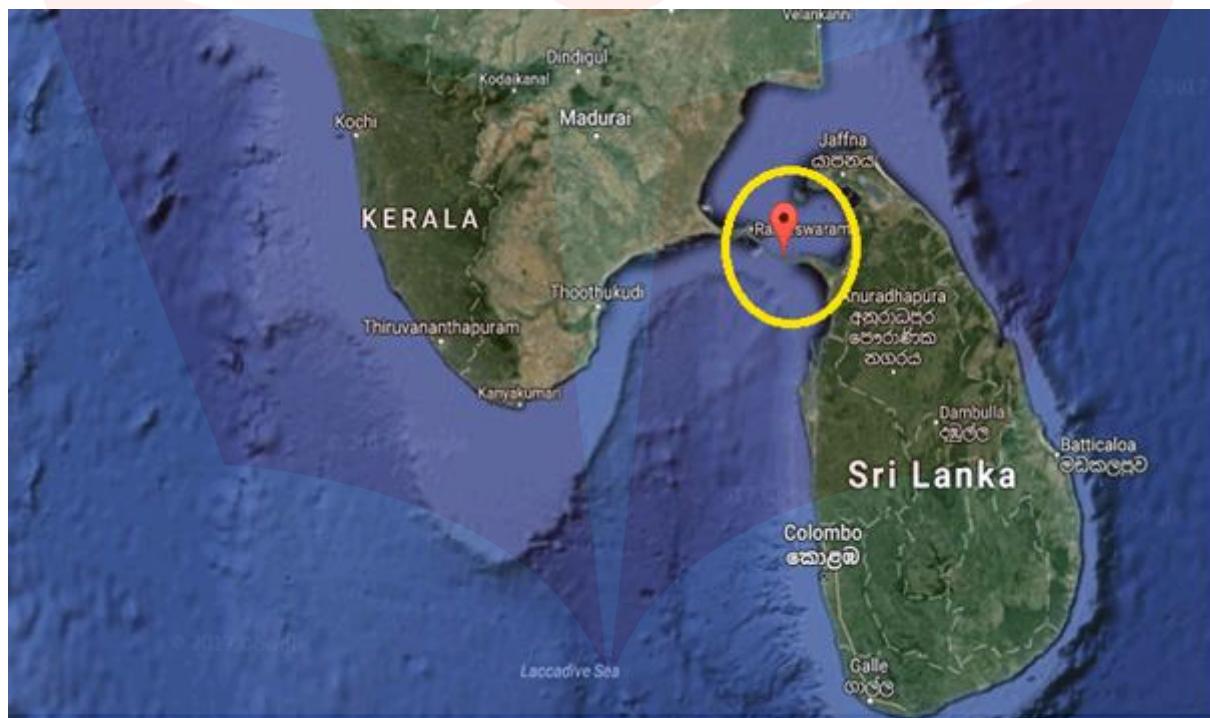
The State government must chalk out plans to augment the storage capacity of waterbodies and protect waterways and encourage farmers to adopt crop diversification, create farm ponds and use fewer water-intensive crops. Unless the State government draws up a long-term strategy to manage its resources, prioritise agrarian needs and come up with better crop insurance policies, Tamil Nadu will not be able to break the vicious cycle of droughts and floods.

Sources: the hindu.

### **ICHR to study if Ram Setu is man-made**

The [Indian Council of Historical Research](#) (ICHR) is set to undertake an archaeological exploration to find out whether the Ram Setu is a natural or man-made phenomenon.

- It will undertake the exploration in October and November, before deciding whether a detailed underwater archaeological excavation is required to probe deeper.



#### **What's the issue?**

The bridge between the coasts of Tamil Nadu and Sri Lanka has been at the centre of controversy since the Sethusamudram shipping canal project was planned, requiring dredging in the area. It is a 30-km-long stretch of limestone shoals that runs from Pamban Island near Rameshwaram in South India to Mannar Island off the northern coast of Sri Lanka.

- While some claim the Setu was a bridge built by Lord Rama's "Vanar Sena" (army of apes and monkeys) and hence cannot be touched, others insist it is a naturally formed chain of lime shoals.

- The matter reached Supreme Court with petitions challenging the government's decision to construct the Sethusamudram Canal by dredging a portion of the Ram Setu. The project is being commissioned under the marine technology training programme of ICHR dealing with under-water archeology and research scholars will be given training for this purpose.

## What next?

Depending on the success of the project and the material gathered, a decision on further exploration will be taken by ICHR. A group of 15-20 research scholars will be selected across the country and will be trained to conduct the research.

Sources: the hindu.

## National Conference on Down Syndrome

National Conference on [Down Syndrome](#) was recently inaugurated in **New Delhi**.

- The Conference was organized by The National Trust for the welfare of persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities under M/o SJ&E in collaboration with Muskaan, a registered organisation of the National Trust.
- The conference called upon the people to provide all types of support and help to Persons with Down Syndrome.

### About Down Syndrome:

Down Syndrome is a **chromosomal condition** associated with intellectual and learning disabilities.

**Causes:** Persons with Down Syndrome have 47 chromosomes as compared to 46 in majority of people.

**Impacts:** This one Extra chromosome causes its own impact and slows down learning process. It impacts neurological functioning causing impairment of intellectual functions e.g. analytical thinking, complex abstractions and judgement etc.

**Treatment:** Good schooling, loving family, learning and work opportunities make them grow up to be responsible, loving and cheerful persons. Their emotions and needs are like any other person of the same age. Accepting and respecting family/community is a big support to their growth and development.



A genetic chromosome 21 disorder causing developmental and intellectual delays.

### Rare

Fewer than 1 million cases per year (India)

 Treatment can help, but this condition can't be cured

Down's syndrome is a genetic disorder caused when abnormal cell division results in extra genetic material from chromosome 21.

Down's syndrome causes a distinct facial appearance, intellectual disability and developmental delays. It may be associated with thyroid or heart disease.

Early intervention programmes with a team of therapists and special educators who can treat each child's specific situation are helpful in managing Down's syndrome.

## Find alternatives to pellet guns: SC

Reminding the government that it is a ‘welfare state’ meant to protect all without causing harm to none, the Supreme Court has asked the Centre to come up with alternatives to pellet guns used by security forces against agitators and stone-pelting mobs on the streets of Jammu and Kashmir.

- The court expressed its concern about how minors, students and innocent by-passers of the Valley become collateral damage, sometimes scarred permanently for life, in the battle for the streets between forces and the mobs. For their sake and that of their parents and loved ones, the court asked the government to consider other alternatives to quell the mobs.
- The centre informed the court that security personnel battle for their own lives and use these guns, at the minimum, as a means of self-defence, and at the most, to bring law and order back on the streets.

### Background:

In December 2016, the Supreme Court sought a similar assurance from the Jammu and Kashmir government to avoid the “indiscriminate” use of pellet guns on protesters in the restive State.



The court’s recent reservations about the use of pellet guns without “proper application of mind” came while hearing a petition filed by the Jammu and Kashmir High Court Bar Association.

### What are pellet guns?

They are a form of non-lethal crowd control methods used by police and military worldwide. The other popular methods are tear gas, water cannon, pepper spray, taser guns etc. Pellet guns are also popular in hunting and pest control.

### What are they intended for?

Pellets guns are intended to injure individuals and cause pain. They are effective over short ranges up to 500 yards but when fired from close quarters can be lethal, particularly when sensitive parts like eyes are hit. Pellets can penetrate soft tissues.

### Who manufactures them?

Pellet guns are manufactured at the Ordnance Factory, Ishapore.

Sources: the hindu.

## IMD trains states to deal with heatwaves as temperatures rise

Anticipating a **structural shift in the country’s weather**, the India Meteorological Department (IMD) is training state governments to improve their **mitigation preparedness to cope with the persistent heatwaves**.

### What's being done?

IMD has tied up with state disaster management commissioners and health secretaries to formulate plans in the face of large casualties from heatwave conditions. The National Disaster Management Authority (NDMA), on its part, has prepared a **standard operating procedure**



template and a sequence of actions to be triggered during a severe heatwave.

### What necessitates this move?

Temperatures across India have been rising on an average of 0.7 degrees every decade, according to IMD, with 2016 the hottest so far.

- Heatwave guidelines will facilitate the stakeholders in preparing a heatwave management and action plan by providing insight into the heat-related illnesses and the necessary mitigative and response actions to be taken.
- It will help in mobilizing and coordinating various departments, individuals and communities to protect themselves against avoidable health problems during spells of very hot weather.

### What are heatwaves?

While there are nuances and region-specific differences, the IMD broadly defines a heat wave as when a place's temperature is 5-6 degrees above normal.

They are usually defined as conditions triggered by the temperature rising to more than 45 degrees Celsius. When temperatures soar above 47 degrees Celsius, it is known as a severe heatwave.

### Who will be affected?

The people most affected by heatwaves are the homeless, farmers, policemen, construction workers, postmen and vegetable vendors—i.e, those who live or work outdoors. Severe heatwave conditions in the past have resulted in school and college vacations being extended.

The health impacts of Heat Waves typically involve dehydration, heat cramps, heat exhaustion and/or heat stroke. The signs and symptoms are as follows:

- Heat Cramps: Edema (swelling) and Syncope (Fainting) generally accompanied by fever below 39°C i.e. 102°F.
- Heat Exhaustion: Fatigue, weakness, dizziness, headache, nausea, vomiting, muscle cramps and sweating.
- Heat Stoke: Body temperatures of 40°C i.e. 104°F or more along with delirium, seizures or coma. This is a potential fatal condition.

Sources: the hindu.

## New accident recording format

A new Road Accident Data Recording and Reporting Format has been rolled out by the **Ministry of Road Transport and Highways (MoRTH)** with a view to moving closer towards an accurate, consistent, and objective road accident database.

The comprehensive recording and reporting format, to be executed by all States and Union Territories, is aimed at bringing out the underlying real cause of the road accident so that stakeholders can take corrective and preventive steps.

### About the new format:

- The recording format, to be filled in by the police at the site of the accident, has five sections specifically to record primary data on road accidents (and not to replace the FIR), capturing the actual circumstances of the accident.
- The five sections are: accident identification details, road-related details, vehicles involved in accident, driver's details, and persons other than drivers involved in accident.
- As many as 55 indices, including weather condition, GPS location, surface condition of road, road type, speed limit, visibility at the time of accident, physical divider, ongoing road works, and use of safety device, have been incorporated in the new recording form.

- The new format will help in finding out real cause, help thorough investigation and implement road safety measures in accident sites.

#### **Way ahead:**

Chief secretaries and State Police Chiefs have been asked to take steps to furnish the road accident details in the new format from this calendar year.

Sources: the hindu.

**Paper 2 Topic:** Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and bodies constituted for the protection and betterment of these vulnerable sections.

### **Centre to Launch Pilot Project on Ornamental Fisheries with total outlay of Rs. 61.89 crore**

Recognizing the potential and scope of ornamental fisheries, the Department of Animal Husbandry, Dairying and Fisheries, the Ministry of Agriculture and Farmers Welfare, has envisaged a program to unlock the country's ornamental fisheries sector through a special drive by launching a pilot scheme for the development of ornamental fisheries with a total outlay of Rs. 61.89 crore.

#### **The major objectives of the pilot project are:**

- To promote ornamental fish culture with cluster-based approach.
- To augment ornamental fisheries trade and export earnings.
- To create employment opportunities for the rural & periurban population.
- Use of modern technology and innovation to make ornamental fisheries a thriving activity.

#### **Key facts:**

- Implementation of the pilot-scale Ornamental Fisheries Project focuses mainly on creating an enabling environment for a sustainable and holistic development of Ornamental Fisheries for the socio-economic development of the people involved in this activity as well as for exports.
- The thrust areas have been identified for enhancing ornamental fisheries production through cluster-based farming and conservation of natural resources, both inland and marine, through habitat restoration and creating awareness amongst the stakeholders.

#### **Implementation of the project:**

The pilot project on ornamental fisheries shall be implemented by the National Fisheries Development Board (NFDB) through the Fisheries Departments of States/UTs.

- For the purpose of implementation of the pilot project, a total of 8 potential States have been identified, viz., Assam, West Bengal, Odisha, Maharashtra, Gujarat, Karnataka, Tamil Nadu and Kerala.
- All the activities under the pilot project are classified in to four major groups, viz., (a) activities related to production of ornamental fish, e.g. setting up of backyard rearing units, medium scale units, integrated breeding-cum-rearing units, etc., (b) activities related to aquarium fabrication, trade and marketing; (c) activities for promotion of ornamental fisheries sector, and (d) activities related to skill development and capacity building.

#### **Funding:**

The broad funding patterns proposed under the pilot project on ornamental fisheries are in line with the funding patterns under CSS Blue Revolution: Integrated Development and Management of Fisheries. The financial resources required to meet the Central Govt. liability towards implementation of the proposed pilot project on development of

ornamental fisheries shall also be mobilized through dovetailing of funds under other schemes implemented in the GoI, in a convergence mode, wherever feasible.

#### **Background:**

Ornamental fishery is a sub-sector of the fisheries sector dealing with breeding and rearing of coloured fish of both freshwater and marine water. Though ornamental fisheries does not directly contribute to the food and nutritional security, it generates livelihood and income for the rural and periurban population, especially women and unemployed youth as part-time activities. The ornamental fish industry in India is small but vibrant, with potential for tremendous growth. The low production cost and high returns within a short span of time and the ever growing demand, both in domestic and international markets, etc. are the major attractions. About 400 species of marine ornamental fishes and 375 freshwater ornamental varieties are available in various parts of our country.

Sources: pib.

## **Labour Ministry's new rule to ensure employer hiring contract labour files unified annual return**

In yet another initiative towards improving the ease of doing business in the country, the labour ministry has notified draft rule that would allow principal employer or contractor hiring contract labour to file a unified annual return under the **Contract Labour (Regulation & Abolition) Act, 1970**.

#### **Key facts:**

- Under the rules, to be called as the Contract Labour (Regulation & Abolition) Central (Amendment) Rules, 2017, every contractor or principal employer shall upload a unified annual return in the Form XXIV specified in these rules on or before the February 1 following the close of the year to which it relates.
- Besides, the employer or the principal contractor also have the option of filing the return manually or online.
- The principal employer or contractor shall also file a Unified Annual Return to the concerned authorities manually.
- In case, if, an employer maintains registers or records or reports in electronic form, such registers or records or reports shall also be taken into consideration.

#### **Background:**

Both the government and the corporate sector employ a large number of contract workers. Contract labour accounts for 55% of public sector jobs and 45% of those in the private sector. Only about 300,000 contract labourers out of an estimated 80 million are employed in the organised sector.

Sources: the hindu.

**Paper 2 Topic:** Important aspects of governance, transparency and accountability, e-governance-applications, models, successes, limitations, and potential; citizens charters, transparency & accountability and institutional and other measures.

## **India first in bribery rate, says global NGO**

The Global Corruption Barometer for the Asia Pacific Region was released recently by Transparency International (TI) – an anti-corruption global civil society organisation.

#### **How was the survey carried out?**

- For its report – People and Corruption: Asia Pacific, part of the Global Corruption Barometer series, TI spoke to nearly 22,000 people in these countries about their recent experiences with corruption.

- For the purpose of this survey, TI concentrated on bribes paid for procuring six key public services viz public schools, public hospitals, official documents (such as identification card, voters card), public utility services, the police and courts.

### **Highlights:**

- India had the highest bribery rate among the 16 Asia Pacific countries. Nearly seven in 10 Indians who had accessed public services had paid a bribe.
- Japan has the least bribery rate, where only 0.2% of the respondents reported paying a bribe.
- India was followed closely by Vietnam where around two thirds (65%) had paid a bribe when accessing public services.
- Across the Asia Pacific region, just 22% of the respondents thought that corruption had decreased while 40% of the respondents (41% in India) were of the option that it was on the rise. In mainland China, 73% of the respondents felt that the level of corruption had worsened. This was the highest of any country surveyed.
- 38% of the poorest people surveyed said they paid a bribe either for access to a service or for quicker delivery. In some countries like India, Pakistan and Thailand, it was the poorer section who had to bear the brunt of corruption and pay a bribe.
- Nearly 73% of those who paid a bribe in India were from the poorer section of society, in Pakistan and Thailand this percentage was 64% and 46% respectively.
- Surprisingly a reverse trend was found in some countries – such as China, where the richer sections were more likely to pay a bribe – perhaps to get a quicker or better quality of service.
- In India, respondents reported the highest bribery incident in procuring government healthcare services and even identification related documents. Nearly 59% of the respondents had paid a bribe for such services. Bribes paid for education were next on the list with 58% having reported doing so.

### **Way ahead for India:**

As many states in India, already have in place the ‘Right to Public Services Act’ cutting across a number of services, which require that services be delivered within a stipulated time period, the survey results point out the need for further improvement.

- At the state level, anti-corruption policies must be focussed on catering to the poor. Uniform best practices for state level lokayuktas must be agreed upon and any overlaps with other law enforcement agencies must be resolved at the earliest.
- At the national level, India needs to urgently align its foreign bribery laws with its UNCAC (United Nations Convention against Corruption) obligations. Signing OECD anti-bribery commission is key in this process. The legal infrastructure for public procurement in India falls under the remit of the General Financial Rules.
- TI recommends that a national procurement law that incorporates international best practices including debarment, appeal processes and a review processes be enacted. This will substantially reduce fraud in public contracting which will in turn affect the quality of public service delivery. For grand corruption, a key step would be to set up effective enabling regulations and institutions for the LokPal.
- 63% of the respondents in India felt that they as individuals had the power to fight corruption. Across the region, people thought that reporting corruption (22%) followed by refusing to pay bribes (21%) were most effective. Over a half of the respondents from India were positive about the government’s efforts to combat bribery.

Sources: the hindu.

## Electoral bonds to flag elections: FM

Finance Minister Arun Jaitley said that the electoral bonds will be made available ahead of the elections and would remain valid for a few days.

### About Electoral Bonds:

The concept of electoral bonds was introduced by Mr. Jaitley during his Budget 2017 speech in order to bring some transparency to the electoral funding process.

- These bonds have to be authorised under a scheme under the Income Tax Act.
- It will open for a limited period of time during the elections, or maybe a little before the elections.
- A bond can be purchased by any donor only by cheque or electronic payment, only at authorised banks.
- These bonds can be donated only to a political party. These are redeemable in only one account of that party, registered with the Election Commission.

### Advantages of Electoral Bonds:

The advantage of the electoral bond system over donations through cheques is that many donors expressed reluctance to use cheques because it becomes transparent and leads to political vendetta by rivals. The other reason that donors did not want their names to be known was that, following the donation, if they legitimately win a contract, then they open themselves up to suspicion of benefiting from a quid pro quo arrangement with the party in power.

Sources: the hindu.

## Centre plumps for rural FMCG e-sales

The Centre has initiated talks with FMCG companies to sell their products online in rural areas through common service centres (CSCs) as it looks to increase the business for such centres.

### Background:

The government is focused on expansion of CSCs because of their inherent strength to transform rural India. With the sale of FMCG products, the door has been opened for popularising e-commerce through CSCs.

There are more than 2.5 lakh CSCs across the country which enable people, particularly in rural areas, to access government services online. These services include ration card, birth certificate, train tickets and online form submission, among other things.

### Significance of this move:

The move will help Village Level Entrepreneurs (VLEs) who run CSCs to earn commission on the products sold while also enabling access for customers in rural areas to these products. According to estimates, a VLE is likely to earn a commission in the range of 12-20% on FMCG products, which is far higher than less than 10% on other services offered.

### About CSCs:

Common Services Centers (CSCs) are a strategic cornerstone of the Digital India programme. They are the access points for delivery of various electronic services to villages in India, thereby contributing to a digitally and financially inclusive society.

### CSCs enable the three vision areas of the Digital India programme:

- Digital infrastructure as a core utility to every citizen.
- Governance and services on demand.
- Digital empowerment of citizens.

Sources: the hindu.

## Centre issues draft rules on e-wallet payments

In a bid to make transactions through e-wallets safer and strengthen the grievance redressal mechanism for consumers, government has released a set of guidelines for wallet firms.

The draft **Information Technology (Security of Prepaid Payment Instruments) Rules 2017** which have been released for public consultation by the ministry of electronics and IT cover an entire spectrum such as protecting consumer information, especially financial data.

### Highlights:

- The Rules mandate that each Prepaid Payment Instruments (PPI) company or wallet firm will have a privacy policy posted on its website. The policy should include details such as consumer information collected, its uses, period of retention of information, purposes for which information can be disclosed and to whom especially with law enforcement agencies. It should also have details on security practices and procedures, name and contact details of the grievance redressal officer along with mechanism for grievance redressal.
- It will also have to appoint a chief grievance officer, the contact details of whom will have to be prominently displayed on the website. The grievance officer will have to “act upon” any complaint within 36 hours and “close” it in a month’s time.
- The draft also mandate that companies have enough safeguards in place to avoid any hacking attacks and if there is one, it is to be swiftly reported to the government agencies.
- The guidelines say that the personal information of the customers will be treated under Section 72A of the Information Technology Act, and the financial data of the customer shall be deemed to be sensitive personal data under the “Information Technology (Reasonable Security Practices and Procedures and Sensitive).
- Every wallet has to ensure that end-to-end encryption is applied to safeguard the data exchanged and shall retain data relating to electronic payments only till necessary.
- The guideline also mandate that CERT-In (Indian Computer Emergency Response Team) shall notify the categories of incidents and breaches that are required to be reported to it mandatorily. CERT-In may require e-PPI issuers to notify customers of cyber security incidents or breaches if the incident or breach is likely to result in harm to the customers.

Sources: the hindu.

## On computing ability, rural India is lost in the woods

An analysis of National Sample Survey Office (NSSO) data reveals that the ability to use computers remains low in the country, in spite of campaigns for digitalisation.

### What is computing ability?

Computing ability is defined as an user's ability to operate a desktop, laptop, palmtop, notebook, smartphone and tablets. The study, supported by the Australian Research Council, claimed that 'computing ability' is not linked to digital infrastructure or internet penetration.

### Highlights of the survey:

- An estimated 8.8% of the rural population has computing ability. In urban areas, the figure is nearly four times higher, at 30.2%.
- Among the major States, Kerala has the highest computing ability at 32.3% in rural areas, while Chhattisgarh has the lowest, 2.9%. In the urban areas, Kerala is in second position, after Delhi. Tamil Nadu and Punjab are in the middle of the table.

- Computing ability, measured from NSS data on Social Consumption and Education, was found to be the lowest in the tribal population.

Sources: the hindu.

## World Consumers Day

**15 March** is **World Consumer Rights Day (WCRD)**, an annual occasion for celebration and solidarity within the international consumer movement. It marks the date in 1962 President John F Kennedy first outlined the definition of Consumer Rights.

- It is an opportunity to promote the basic rights of all consumers, for demanding that those rights are respected and protected, and for protesting the market abuses and social injustices which undermine them.

### Key facts:

- WCRD was first observed on 15 March 1983, and has since become an important occasion for mobilising citizen action.
- **Consumers International (CI)**, which was founded in 1960 organises WCRD. It is the only independent and authoritative global voice for consumers and has over 220 member organisations in 115 countries around the world.
- Every year a theme is chosen for this day, and this year it is '**Building a digital world consumers can trust**'.

Sources: pib.

## CAG pulls up I-T Dept. on shell companies

The Comptroller and Auditor-General (CAG) has pulled up the Income Tax Department for not putting to use the tools at its disposal for effective action against shell companies that conceal unaccounted-for income and generate black money, specifically with respect to Maharashtra Sales Tax Department findings.

### What's the issue?

In its latest report, the CAG said the Maharashtra State IT department's website had a list of 2,059 suspicious dealers who had issued invoices involving tax evasion of over ₹10,640 crore. The auditor had sought details from the I-T Department in Mumbai on the assessees and the ultimate beneficiaries, but despite reminders, the data were not provided.

- In 2008-09, the MSTD had informed the Bombay High Court that it had investigated 1,555 hawala operators involving 39,488 beneficiary dealers who had passed on an input tax credit of ₹1,333 crore in three years.
- The accused claimed and got input tax credit against the declaration of fake tax invoices without actual transactions involving the sale and purchase of goods. To evade detection, payments were made against the invoices by cheque or bank transfers and the amounts were later withdrawn from the accounts of hawala operators.
- The CAG relied upon the MSTD data for analysis and found that the Income Tax Department had not even scrutinised all the assessees featuring on the list.

### Concerns:

The shell companies are used to generating bogus bills showing inflated expenses on various counts. They receive payments through the banking channel to project the transactions as genuine, and then return the rest to the ultimate beneficiaries after charging a commission. Unscrupulous tax consultants and chartered accountants are also involved in the setting up of such entities.

Sources: the hindu.

## Celebrities to face law for misleading ads

The Centre will soon introduce a new consumer protection law to impose stringent punishment for misleading advertisements on manufacturers, celebrities endorsing products and publishers. The bill in this regard has already been drafted and is under consideration.

### Background:

The government had earlier introduced the Consumer Protection Bill, 2015, which was referred to the Parliamentary Standing Committee, which recommended several changes to the Bill. As over 80 amendments were made, it was decided to bring in a new Bill.

### Proposals in the new law:

- For the first time offence, a fine of Rs 10 lakh and jail term of up to two years, while for second and subsequent offenses, a fine of Rs 50 lakh and imprisonment of five years has been proposed for brand ambassadors. The ministry has proposed similar penalty and jail term for adulteration, besides license suspension and cancellation.
- ‘Deficiency in services’ in product liability is also included. An enabling provision to make rules to regulate e-commerce and direct selling will also be provided.
- Overlap of powers of Central Consumer Protection Authority (CCPA) and the Consumer Fora have been removed. An investigating wing will be set up at CCPA, while limiting the role of a district collector to support CCPA in investigation.
- A provision for penalty on consumers for frivolous complaints has also been removed.

Sources: the hindu.

## India slips in human development index

The [2016 Human Development Report](#) has been released by the UNDP. HDI is also released as part of the report.

### About HDI:

The **Human Development Index** is based on assessing progress on **three dimensions** of human development. First, a long and healthy life measured through **life expectancy** of the population. Second, access to knowledge measured by **mean years of education** among the adult population, and access to learning and knowledge measured by **expected years of schooling for children** of school-entry age. And last, standard of living measured by the **country's per-capita gross national income (GNI)**.

### Performance of India:

- India slipped down one place from 130 to **131** among the 188 countries.
- India's human development index (HDI) value of **0.624** puts it in the “**medium human development**” category, alongside countries such as Congo, Namibia and Pakistan.
- It is ranked third among the SAARC countries, behind Sri Lanka (73) and the Maldives (105), both of which figure in the “**high human development**” category.
- India's public health expenditure is lower, at 1.4% of the GDP. However, it did make some gains between 1990 and 2015, improving life expectancy by 10.4 years in this period. Child malnutrition also declined by 10 percentage points from 2015, and there was a modest gain in infant and under-five mortality rates.
- The report praised India's reservation policy, observing that even though it “has not remedied caste-based exclusions”, it has “had substantial positive effects”.
- The HDR also hailed the national rural employment guarantee programme as a “prime example” of “combining social protection with appropriate employment strategies”.

- While India's HDI value increased from 0.428 in 1990 to 0.624 in 2015, it still had the lowest rank among BRIC nations. However, its average annual growth in HDI (1990-2015) was higher than that of other medium HD countries.

**Table 1: Human Development Index and its components**

[Read the full explanation of the Human Development Index \(HDI\)](#)

[View the HDI Frequently asked questions](#)

		Human Development Index (HDI)	Life expectancy at birth	Expected years of schooling	Mean years of schooling	Gross national income (GNI) per capita	GNI per capita rank minus HDI rank	HDI rank
HDI rank	Country	Value	(years)	(years)	(years)	(2011 PPP \$)		
		2015	2015	2015	a	2015	a	2014
<b>VERY HIGH HUMAN DEVELOPMENT</b>								
1	Norway	0.949	81.7	17.7	12.7	67,614	5	1
2	Australia	0.939	82.5	20.4	b	42,822	19	3
2	Switzerland	0.939	83.1	16.0	13.4	56,364	7	2
4	Germany	0.926	81.1	17.1	13.2	c	45,000	13
5	Denmark	0.925	80.4	19.2	b	44,519	13	6
5	Singapore	0.925	83.2	15.4	d	78,162	e	4
7	Netherlands	0.924	81.7	18.1	b	11.6	46,326	8
8	Ireland	0.923	81.1	18.6	b	12.3	43,798	11
9	Iceland	0.921	82.7	19.0	b	12.2	c	9
10	Canada	0.920	82.2	16.3	13.1	f	42,582	12
10	United States	0.920	79.2	16.5	13.2	53,245	1	11
12	Hong Kong, China (SAR)	0.917	84.2	15.7	11.6	54,265	-2	12
13	New Zealand	0.915	82.0	19.2	b	12.5	32,870	20
<b>MEDIUM HUMAN DEVELOPMENT</b>								
HDI rank	Country	Human Development Index (HDI)	Life expectancy at birth	Expected years of schooling	Mean years of schooling	Gross national income (GNI) per capita	GNI per capita rank minus HDI rank	HDI rank
		Value	(years)	(years)	(years)	(2011 PPP \$)		
		2015	2015	2015	a	2015	a	2014
130	Honduras	0.625	73.3	11.2	6.2	4,466	11	130
131	India	0.624	68.3	11.7	6.3	c	5,663	-4
132	Bhutan	0.607	69.9	12.5	3.1	n	7,081	-12
133	Timor-Leste	0.605	68.5	12.5	4.4	q	5,371	l
134	Vanuatu	0.597	72.1	10.8	o	6.8	n	134
135	Congo	0.592	62.9	11.1	6.3	c	5,503	-7
135	Equatorial Guinea	0.592	57.9	9.2	k	5.5	q	137
137	Kiribati	0.588	66.2	11.9	7.8	k	2,475	23
138	Lao People's Democratic Republic	0.586	66.6	10.8	5.2	n	5,049	-2
139	Bangladesh	0.579	72.0	10.2	5.2	c	3,341	8
139	Ghana	0.579	61.5	11.5	6.9	f	3,839	5
139	Zambia	0.579	60.8	12.5	6.9	f	3,464	139
142	Sao Tome and Principe	0.574	66.6	12.0	5.3	3,070	12	142
143	Cambodia	0.563	68.8	10.9	4.7	q	3,095	10
144	Nepal	0.558	70.0	12.2	4.1	n	2,337	144
145	Myanmar	0.556	66.1	9.1	m	4.7	f	4,943
146	Kenya	0.555	62.2	11.1	6.3	f	2,881	10
147	Pakistan	0.550	66.4	8.1	5.1	5,031	-10	148

### Global scenario:

- The world's top three countries in HDI are **Norway** (0.949), Australia (0.939) and Switzerland (0.939).
- The report says 1.5 million people worldwide still live in multidimensional poverty, 54% of them concentrated in South Asia. While poverty fell significantly from 1990 to 2015, inequalities sharpened in the region.
- South Asia also had the highest levels of malnutrition in the world, at 38%, and the lowest public health expenditure as a percentage of the GDP (1.6%, 2014).

- Noting that women, on an average, have lower HDI than men across the world, the report pointed out that the largest gender disparity in development was in South Asia, where the female HDI value is 20% lower than the male value.
- In South Asia, gender gaps in entrepreneurship and labour force participation caused an estimated income loss of 19%. “Between their first and fifth birthdays, girls in India and Pakistan have a 30% to 50% greater chance of dying than boys,” the report noted.

Sources: the hindu.

## 8 tribunals face axe amid downsizing

The Centre has decided to wind up eight tribunals that currently deal exclusively with disputes pertaining to employees' provident fund or EPF, Competition law, Airports' economic regulation, Information Technology law, National highways, railways, copyrights and foreign exchange.

- The Lok Sabha has approved amendments to this effect in the Finance Bill of 2017 proposed by the Centre, along with changes in the norms for tribunals, appellate tribunals and other boards associated with the administration of 17 central laws.

### **Key facts:**

- The major tribunals to be relegated to history include the Competition Appellate Tribunal, whose work will now be transferred to the National Company Law Appellate Tribunal; the Airports Economic Regulatory Authority Appellate Tribunal (AERAAT) and the Cyber Appellate Tribunal — whose functions will now be discharged by the Telecom Disputes Settlement and Appellate Tribunal (TDSAT).
- The EPF Appellate Tribunal's remit would be transferred to the Industrial Tribunal that examines matters under the Industrial Disputes Act of 1947.
- Cases under the Foreign Exchange Management Act of 1999 would be transferred from the dedicated tribunal for foreign exchange matters to the Appellate Tribunal constituted under the Smugglers and Foreign Exchange Manipulators (Forfeiture of Property) Act of 1976.
- National Highways Tribunal that deals with disputes under the Control of National Highways (Land and Traffic) Act of 2002 will be wound up.
- Highway disputes will now be adjudicated by the Airport Appellate Tribunal set up under the Airport Authority of India Act of 1994, which is distinct from AERAAT.
- The Railways Rates Tribunal for hearing matters under the Railways Act of 1989 will also cease to exist, with its workload transferred to the Railway Claims Tribunal set up under a 1987 law.
- The Copyright Act of 1957, decisions under which are currently reviewed by the Copyright Board, will now be transferred to the Intellectual Property Appellate Board set up under the Trademarks Act of 1999.

### **Way ahead:**

Typically, the terms of service of such tribunal heads and members are enshrined in the laws. The chairpersons and members of tribunals that are being wound up, will receive three months pay and allowances for the premature termination of their tenure, even as the Finance Bill makes significant changes in the terms of service and rules for appointments of such members and chairpersons in the tribunals that will continue to operate.

Sources: the hindu.

## Corporate funding norms for political parties eased

The government has moved several amendments to the Finance Bill of 2017. In a significant change to electoral funding norms, corporate donations to political parties will no longer face any ceiling linked to firms' profitability and companies will no longer be obliged to inform their shareholders which party's coffers they contribute to.

### Key facts:

- The government has also included an amendment to the Companies Act of 2013 to do away with the 7.5% of net profits limit set on donations and the requirement for a company to disclose the name of political parties to which they donate.
- A clause has also been inserted in the Companies law to make it mandatory for all corporate donations to political parties to be made by a cheque, electronic means, a bank draft or any other instrument notified by the government.



### Present scenario:

As of now, companies can only contribute up to 7.5% of their average net profits in the past three financial years to political parties. Moreover, they are required to disclose the amount of contributions made and the names of the political parties to which they were made, in their profit and loss accounts.

Sources: the hindu.

## A leaner military is on the cards

The government has approved a host of reforms in the military, with proposals to cut flab and improve financial management.

### Background:

These reforms were proposed by a committee of experts, headed by Lt. Gen. D.B. Shekatkar (Retd), constituted by the Defence Ministry. The committee, set up in 2015 to recommend **measures to enhance combat capability and rebalance defence expenditure of the armed forces**, submitted its final report in December 2016.

### Key reforms proposed:

- A **roll-on defence budget** to have enough capital expenditure available for modernisation as against the present practice of surrendering unspent capital budget at the end of each financial year.
- A **performance audit** of the role of non-combat organisations under the Defence Ministry. The organisations include those dealing with defence estates and accounts, the Director- General of Quality Assurance, the Ordnance Factory Board, the Defence Research and Development Organisation and the NCC.
- **Downsizing or rationalisation of manpower** in the organisations, which can lead to significant savings.
- **Setting up of a joint services war college** for training middle-level officers.

### Way ahead:

The committee has said that if its recommendations are implemented over the next five years, the government can save up to ₹25,000 crore from the current expenditure.

Sources: the hindu.

## Online Film Certification System

The ministry of Information and Broadcasting has launched an **Online Film Certification System- or E-Cinepramaan**. This is aimed at enhancing ease of doing business in the country. The objective is to eliminate the need for human interface to the extent possible.

- The new online certification system would be an important step in making the [CBFC](#) Office **paper less** and would enable effective monitoring & real time progress tracking for both CBFC Officials and the applicant (Producers).

The Salient features of the online film certification system are as follows:

- In the e-cinepramaan, the **status of each application** would be visible online in the dashboard of the producer/concerned CBFC official.
- In case of short films/promos/trailers less than 10 minutes, even for Examination purposes also, the producer need not visit the Office/Theatre. They can merely submit their creations online.
- For films longer than 10 minutes, the applicant will only have to show the film at the Examining theatre and will not have to visit the CBFC Offices at all except to collect their certificates.
- The producer/applicant would be informed by SMS/e-mail of the status of their application and any action needed, beginning from the receipt of application to the certificate collection.
- The **transparency in the system and elimination of middle men** would mitigate chances of any corruption and would also avoid allegations of jumping the queue or rigging up of Examination committees.
- The implementation of **QR code** on the certificates would eliminate chances of fraudulent certificates.
- The system envisages a robust MIS system for performance tracking and efficient reporting.
- The system has inbuilt alerts depending on the pendency of the application to ensure that time limits prescribed by the Rules are not violated.
- Simultaneously, a new CBFC Website has also been developed bringing in new user friendly features and important information at the click of a button.



Sources: the hindu.

## CAG protests refusal of access to GSTN data

The Comptroller and Auditor General (CAG) has protested with the finance ministry against the **Goods and Services Tax Network (GSTN)**, a special purpose vehicle majority owned by private companies, **refusing to give access to taxpayers data on its network for scrutiny and audit**.

### What is GSTN?

The **GSTN is a private limited company floated to aid the rollout of the new indirect tax regime**. The company will provide information technology support to all stakeholders for smooth implementation of the new taxation regime across the country and will be the **repository of all information** related to taxation and entities registered under GST.



The majority (51%) shareholding in the firm is with private entities including HDFC Bank, ICICI Bank and LIC among others. The central government, jointly with state governments and Union Territories, own 49% in the company.

### Why GSTN has refused to give information?

GSTN has refused to allow the CAG on the ground that it was a non-government company and the auditor could not exercise the same rights as applicable for public enterprises.

The GSTN also argued that it was just a “pass through portal” and that the CAG must approach the Central Board of Excise and Customs and states which would have original data filed by taxpayers.

### CAG's arguments:

Rejecting GSTN's contention, CAG has said the source of all taxpayers' data in the GST regime would be with GSTN, ‘being the primary location’ where the data is created. It is from here that the data is selectively pushed to CBEC and states. It is therefore essential for the CAG to access the data lying at the primary source for performing its constitutional mandate.

The CAG also contended that the government had “strategic control” in GSTN irrespective of the shareholding pattern. The SPV is performing a part of the statutory function pertaining to revenue collection on behalf of the Centre and states and it could not refuse to give access to information to the auditor.

### Way ahead:

CAG has requested the Finance ministry to ensure that it gets access to data maintained on the GSTN portal as well as to its application software, the modalities of which could be worked out later.

Sources: the hindu.

**Paper 2 Topic:** Development processes and the development industry the role of NGOs, SHGs, various groups and associations, donors, charities, institutional and other stakeholders.

## India to Host 10th International Conference on Theory and Practice of Electronic Governance: ICEGOV 2017

The Ministry of Electronics & Information Technology, Government of India, in collaboration with United Nations University and UNESCO, is organizing a three-day International Conference 10th ICEGOV 2017 in Delhi in March.

**Theme:** Building Knowledge Societies: From Digital Government to Digital Empowerment.

### Key facts:

- The key objective of ICEGOV2017 is to explore how Digital Government can lead to Digital Empowerment by local knowledge.
- ICEGOV 2017 is the 10th edition of ICEGOV, which will focus on the use of technology to transform relationships between government and citizens, businesses, civil society.
- It will try to inculcate an outlook to create new forms, paradigms, foundations for technology-enabled governance, collaboration, development.
- The 10th ICEGOV will bring together academia, governments, international organizations, civil society, and the private sector to share the insights and experiences in theory and practice of Digital Government.
- 560 papers from around 60 countries will be presented, which is highest number of paper submission in the history of ICEGOV.

### About ICEGOV:

International Conference on Theory and Practice of Electronic Governance (ICEGOV) is an international conference series, established by the United Nations University in 2007, with the aim of bringing together practitioners,

developers and researchers from government, academia, industry, non-governmental organizations and UN organizations to share the latest in theory and practice of Electronic Governance.

The ICEGOV series focuses on the use of technology to transform relationships between government and citizens, businesses, civil society and other arms of government (Electronic Governance). The Series looks beyond the traditional focus on technology-enabled transformation in government (Electronic Government), towards establishing foundations for good governance and for sustainable national development.

Sources: pib.

## Australia wants India to be a 'consistent buyer' of its cotton

Australia, the fifth-largest exporter of cotton, is looking at India to emerge as a consistent and major buyer of the commodity. In this regard, an eight-member delegation representing the Australian Cotton Shippers' Association recently held meetings in Ludhiana, Mumbai, and Coimbatore.

### Background:

Australia has close to 1,200 cotton growers and can supply even small quantities to India. China purchased more than 30% of Australia's cotton production last year. However, this was lower than its usual purchase. India is a big market for cotton.

- India used to purchase 5-7% of cotton produced in Australia every year. In 2016, it shot up to close to 23 % due to a drop in production in India. Indian textile mills use Australian cotton as a blend to produce high-value garments.
- **India is the largest producer and consumer of cotton globally.**

Sources: the hindu.

## Labour code to provide social security cover to all workers

The government has proposed a labour code which will provide social security cover to the entire workforce in the country, including self-employed and agricultural workers.

The code is proposed by the labour ministry.

### Highlights of the 'draft code on Social Security and Welfare':

- According to the code, even households employing domestic help will also have contribute towards schemes including provident fund and gratuity for the worker. Factories employing even a single worker will have to contribute towards social security benefits, as per the proposal.
- Every working person in the country will be covered under the social security code whether she belongs to the organised sector or the unorganised sector. For the first time, cover to agricultural workers is being provided along with self-employed people. The target is to provide social security benefits to 45 crore workers.
- The proposed code seeks to cover "any factory, any mine, any plantation, any shop, charitable organisations" and all establishments or households employing casual, part-time, fixed-term, informal, apprentice, domestic and home-based workers. All such establishments or factories will be liable to pay compensation if they fail to contribute towards the social security schemes of the workers.
- The total contribution to be made by employers towards Employees' Provident Fund and Employees' State Insurance Scheme is proposed to be capped at 30% of the workers' income. At present, employers contribute 31.5% of the workers' income towards these schemes.
- According to the proposed code, self-employed workers will contribute 20% of their monthly income towards provident fund, pension and other related schemes. Self-employed workers will also include "a person who takes land on share cropping or any other form of rent, and tills the same using his own or family members' labour."

- All the entities – whether factories or households – will have to register their workers through an Aadhaar-based registration system, according to another proposal, and self-employed workers will be required to register themselves.
- Social security benefits unclaimed for five years after becoming due to the worker will be confiscated by the government, according to the proposed code.

### **National Social Security Council:**

A National Social Security Council, chaired by the Prime Minister, has been proposed to streamline and make policy on social security schemes related to all the Ministries. Other members would include: Finance Minister, Labour Minister, Health and Family Welfare Minister along with employer and employees' representatives.

The council will co-ordinate between central and State governments, monitor the implementation of social security schemes, regulate funds collected under various social security schemes, among others, according to the proposed labour law.

Sources: the hindu.

**Paper 2 Topic:** Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

### **Commonwealth card mooted**

Commonwealth nations could consider a scheme similar to the Business Travel Card scheme, used across the Asia-Pacific Economic Cooperation (APEC) forum, as a means of promoting intra-Commonwealth trade and investment.

- This was proposed by the chairman of the Commonwealth Enterprise and Investment Council, ahead of the inaugural Meeting of Commonwealth Trade Ministers in London on March 9-10, convened by the CWEIC, and the Commonwealth Secretariat.

### **Background:**

Under the APEC scheme, which includes 19 fully participating countries, including Australia, Hong Kong, Russia and Singapore, business travellers are able to apply for five-year-long, short-term, multiple-entry permits to other member states, freeing them from the need to apply for visas every time they travel.

### **About CWEIC:**

CWEIC is a membership organisation with a small secretariat supported by an Advisory Board comprising Government and business leaders from across the Commonwealth.

- The purpose of the Council is to promote trade and investment by facilitating engagement between Government and the private sector throughout the Commonwealth.
- CWEIC is a values based organisation reflecting the commitments of the Commonwealth Charter. Central to CWEIC's work is the understanding that businesses require a set of values under which trade and investment can take place; transparency; good governance; respect for the rule of law; enforceable physical and intellectual property rights; equal opportunities and a diverse workforce and an overarching understanding that financial probity from government and the private sector is key to a flourishing business environment.
- CWEIC is the apex organisation representing private sector businesses within the Commonwealth and is the only institution with a remit to promote intra-Commonwealth trade and investment.
- The CWEIC is also responsible for organising the Commonwealth Business Forum alongside the biennial Commonwealth Heads of Government Meeting.

Sources: the hindu.

## Commonwealth unveils initiative to stamp out domestic violence

The Commonwealth is launching an initiative to help member states tackle domestic violence, which it said remained a "stubborn stain" on communities, disproportionately impacting women.

- The programme, which is being launched on Women's Day, will continue through till 2018, when there is expected to be an accord on ending domestic violence in the Commonwealth.

### Key facts:

- The "Peace in the home" programme will include toolkits to help governments across the Commonwealth involve multiple agencies — such as schools, doctors and hospitals, as well as government — and law enforcement agencies to work together effectively, and will help countries highlight and share details of initiatives that had been particularly successful at dealing with domestic violence.
- There will also be a mentoring programme for women, and an initiative to address the issue of violence around elections and politics.
- The Commonwealth initiative will build a coalition of governments, businesses, human rights institutions, civil society and individual citizens to choral efforts to address domestic violence.
- An initiative to map the economic cost of domestic violence in Commonwealth countries, as well as focus on strengthening laws protecting women and girls across the group will also be launched.

### Background:

According to the UN estimates one in three women has suffered from in one form or another domestic violence.

Sources: the hindu.

## Global fund to help solve India's HIV drug crisis

After running out of the child-friendly HIV syrup, Lopinavir, India is likely to procure the drug from a rapid supply facility routed through the Global Fund for AIDS, Tuberculosis and Malaria (GFATM), a multilateral donor agency.

### Background:

India has a cohort of over 600 children who require 36,000 bottles of Lopinavir syrup annually. Stocks of Lopinavir syrup — a child friendly HIV drug — ran out after Cipla, the sole manufacturer of the drug, stopped manufacturing it over the issue of non-payment from the Health Ministry. Cipla is the dominant player in the Indian market across the HIV segment and has not stopped participating in government tenders after the Health Ministry failed to pay Cipla for consignments sent in 2014.

### About Global Fund for AIDS, Tuberculosis and Malaria (GFATM):

The Global Fund is a 21st-century partnership organization designed to accelerate the end of AIDS, tuberculosis and malaria as epidemics.

- Founded in 2002, the Global Fund is a partnership between governments, civil society, the private sector and people affected by the diseases. The Global Fund raises and invests nearly US\$4 billion a year to support programs run by local experts in countries and communities most in need.
- The idea was discussed at a G8 summit in Okinawa, Japan, in 2000. The real commitment began to coalesce at the African Union summit in April 2001, continued at the United Nations General Assembly Special Session in June of that year, and was finally endorsed by the G8 at their summit in Genoa in July 2001. A Transitional Working Group was established to determine the principles and working modalities of the new organization, and the Global Fund came into being in January 2002.

- The Global Fund is a financing institution, providing support to countries in the response to the three diseases. It does not implement programs on the ground. Global Fund staff, all based in Geneva, Switzerland, come from all professional backgrounds and from more than 100 different countries.
- Each implementing country establishes a national committee, or Country Coordinating Mechanism, to submit requests for funding on behalf of the entire country, and to oversee implementation once the request has become a signed grant. Country Coordinating Mechanisms include representatives of every sector involved in the response to the diseases.

Sources: the hindu.

## Centre mulls more 'border haats'

The government is mulling opening more 'border haats' (border markets), encouraged by its success at the India-Myanmar border. Current border haats are functioning well.

### **What are Border Haats?**

The border haats are markets that aim at promoting the wellbeing of the people dwelling in remote areas across the borders of two countries, by establishing traditional system of marketing the local produce through local markets.

India currently has functional border haats with Bangladesh.

Sources: the hindu.

## India and Belgium sign Protocol amending the India-Belgium Double Taxation Avoidance Agreement and Protocol

India and Belgium have signed a Protocol amending the existing Agreement and Protocol between the two countries for Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income.

### **Significance of this move:**

The Protocol will broaden the scope of the existing framework of exchange of tax related information. This in turn will help curb tax evasion and tax avoidance between the two countries and will also enable mutual assistance in collection of taxes.

### **Background:**

Fighting the menace of Black Money stashed in offshore accounts has been a key priority area for the Government. To further this goal, India has either signed or amended international agreements, declarations or conventions for the Avoidance of Double Taxation & Prevention of Fiscal Evasion with respect to Taxes on Income and for the Exchange of Information with Switzerland, Mauritius, Cyprus, Japan, Republic of Korea, Kazakhstan, Singapore and Austria during the financial year 2016-17.

Sources: pib.

## India, Pak's entry into SCO may boost regional stability: Chinese media

China has observed that the entry of India and Pakistan into China-led SCO may help boost anti-terrorism cooperation between the two countries and provide a platform to resolve their differences.

- The entry of the two nations into the SCO may help boost cooperation between India and Pakistan in areas such as infrastructure and anti-terrorism efforts.
- India and Pakistan are expected to be admitted into the six-member Shanghai Cooperation Organisation (SCO) during its next summit to be held at Astana, the capital of Kazakhstan, in June this year.

## **Background:**

Its 2015 summit in Ufa, Russia, the SCO formally adopted a resolution which started the procedures to admit India and Pakistan into the grouping.



## **About SCO:**

The SCO, which is headquartered in Beijing, focuses mostly on security related issues like counter-terrorism cooperation in Central Asia. It is comprised of China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan and Uzbekistan as full members. Afghanistan, Belarus, Iran, and Mongolia have observer status. India and Pakistan also enjoyed observer status so far.

Sources: the hindu.

## **Cabinet apprised of MoUs for cooperation in Youth and Sports Matters with Indonesia and the Kyrgyz Republic**

Union Cabinet was recently apprised of the Memoranda of Understanding (MoUs) signed between India and Kyrgyz Republic for cooperation in the field of youth development.

- The MoU envisages organizing Youth Exchange Programmes with Kyrgyz Republic, and cooperation in other youth and sports related matters.

## **Background:**

International Youth Exchange programmes promote exchange of ideas, values and culture amongst youth and help in developing international perspective among the youth. Further, these Programmes promote peace and understanding, and strengthen friendly relations between countries. Cooperation in other youth and sports-related matters also helps in youth development and sports promotion in partner countries.

The benefits arising from bilateral exchange programmes in the field of Youth and Sports would be equally available to all youth irrespective of their caste, religion and gender.

## **About Kyrgyz Republic:**

It is a country in Central Asia. Landlocked and mountainous, Kyrgyzstan is bordered by Kazakhstan to the north, Uzbekistan to the west and southwest, Tajikistan to the southwest and China to the east. Its capital and largest city is Bishkek.

- The mountainous region of the Tian Shan covers over 80% of the country (Kyrgyzstan is occasionally referred to as “the Switzerland of Central Asia”, as a result).
- Issyk-Kul Lake, or Ysyk-Köl in Kyrgyz, in the north-eastern Tian Shan is the largest lake in Kyrgyzstan and the second largest mountain lake in the world after Titicaca. The highest peaks are in the Kakshaal-Too range, forming the Chinese border.

Sources: pib.

## **Cabinet approves of MoU between India and Bangladesh on Aids to Navigation (AtoNs)**

The Union Cabinet has approved signing of a Memorandum of Understanding (MoU) on Aids to Navigation (AtoNs) between India and Bangladesh. A navigational aid (also known as aid to navigation, ATON, or navaid) is any sort of marker which aids the traveler in navigation; the term is most commonly used to refer to nautical or aviation travel. Common types of such aids include lighthouses, buoys, fog signals, and day beacons.

## **The MoU envisages cooperation between Bangladesh and India:**

- To extend advice on lighthouses and beacons.

- To extend advice on Vessel Traffic Service and chain of Automatic Identification System (AIS).
- To impart training as per International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) training module to AtoN Managers and Technicians for Bangladesh.

### **The MoU will enable both the countries to collaborate in the following areas:**

- To provide advice on AtoNs.
- Provide academic interaction by imparting training to AtoN personnel.
- Provide necessary cooperation in organizing workshops/conferences for enhancement of skills in AtoN field.

### **Significance of this MoU:**

India and Bangladesh are two important developing nations in the South Asian region. Both countries maintain a long tradition of friendly and cordial relations which has been manifested in the several bilateral visits of dignitaries from both sides during recent years.

The MoU will help in greater cooperation in capacity building in the field of AtoN training in the South Asian region. This will give a boost to imparting training on the management of marine aids to navigation based on IALA Model Course E-141/1 and accordingly facilitate the delivery of a professional training course as per the IALA guidelines.

### **Background:**

IALA is the international body coordinating and harmonizing the use of all Aids to Navigation. India represented through DGLL, is a member of IALA Council. As a step towards regional cooperation, India and Bangladesh have signed a Memorandum of Understanding for cooperation on AtoN.

- As per the MoU, the DGLL on behalf of Ministry of Shipping, Government of India shall advise its counterpart Department of Shipping, Ministry of Shipping, Bangladesh on AtoNs including Vessel Traffic Service, Chain of Automatic Identification System.
- In order to train AtoN personnel of Bangladesh, DGLL shall organize training as per IALA training module to AtoN Managers and Technicians, organize Workshops/Conferences. This will help in capacity building of Bangladesh AtoN Personnel.

Sources: pib.

## **India's contribution to United Nations rose 55% to Rs 244 crore in 2015-16**

India's contribution to the United Nations rose 55% to Rs 244 crore in 2015-16 compared with the previous fiscal. The government has also made voluntary contributions to the tune of Rs 22 crore to international organisations, including UN agencies, in the last financial year.

### **Background:**

Each UN member is required to contribute to the organisation's Regular and Peacekeeping budgets. These obligatory contributions are calculated based on a member's relative 'capacity to pay'.

- This is defined through a scale of assessment that takes into account the member country's Gross National Income relative to the Global Gross National Income, adjusted further for the level of its national external debt and low per capita income.
- For Peacekeeping budget, since all permanent members of the Security Council bear special responsibilities for the maintenance of international peace and security, they must contribute additional amounts.

Sources: pib.

## International Diamond Conference “Mines to Market 2017”

International Diamond Conference “Mines to Market 2017” was recently held.

### Key facts:

- The Gem and Jewellery Export Promotion Council of India hosted the International Diamond Conference.
- The conference was held with an objective of bringing together the leading Miners, Diamantaires, Retailers, Bankers and Analysts from across the globe on a platform to discuss the supply and demand issues faced by the Global Diamond Industry.
- The conference witnessed Ministers from mining countries, delegates from Mining Companies, heads of Retail and Luxury brands, Int. Diamond heads of various banks and other prominent personalities of the Diamond industry.

### Background:

- **India is the largest cut and polished diamond manufacturer in the world. 93 % of its production is exported.**

### About GJEPC:

The Gem & Jewellery Export Promotion Council (GJEPC) was set up by the Ministry of Commerce and industry, Government of India (GoI) in 1966. It was one of several Export Promotion Councils (EPCs) launched by the Indian Government, to boost the country's export thrust, when India's post-Independence economy began making forays in the international markets. Since 1998, the GJEPC has been granted autonomous status. The GJEPC is the apex body of the gems & jewellery industry and today it represents over 6,000 exporters in the sector.

Sources: pib.

## BIMSTEC meet to focus on terror

India recently hosted the meeting of the national security advisers and security chiefs of BIMSTEC countries here on Tuesday, taking the first steps towards building a security architecture for the Bay of Bengal region. Counter-terrorism cooperation, counter radicalisation and maritime were the focus areas.

- The meeting also deliberated on a host of security issues including the festering Rohingya crisis in Myanmar, which has seen terror groups like Lashkar-e-Toiba and al Qaeda trying to radicalise them.

### Background:

The idea of the security meet was mooted during the BRICS-BIMSTEC summit in Goa in 2016. India considers Bay of Bengal as an important economic and strategic space and security challenges in this region have assumed greater importance. The Bay of Bengal sits in the centre of sea lanes of communication and trade and energy routes. It has assumed greater importance after India decided to develop its eastern seaboard with its ambitious ‘Sagar Mala’ project. All of these put security issues in sharp focus.

China’s growing power play in the South Asian region and Indian Ocean has made it imperative for India to engage the countries in the neighbourhood in a security conversation that takes New Delhi’s security interests on board, while enabling them to deal with their own emerging security challenges.

### About BIMSTEC:

The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is an international organization involving a group of countries in South Asia and South East Asia.

- The BIMSTEC comprises of seven countries, **Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand.**
- The main objective of BIMSTEC is **technological and economical cooperation** among South Asian and South East Asian countries along the coast of the Bay of Bengal.

- The headquarters of BIMSTEC is in **Dhaka**.

Sources: pib.

## 1st Grand Challenges India (GCI) Meeting

1st **Grand Challenges India (GCI)** meeting was recently held in **New Delhi**. The meeting was hosted by the Program Management Unit at BIRAC (PMU-BIRAC) and is jointly supported by Department of Biotechnology (DBT), Government of India, the Bill & Melinda Gates Foundation (BMGF) and Wellcome Trust.

### What is GCI?

The Grand Challenges India (GCI) is a mission-directed research initiative, collaboratively launched in 2012 under the umbrella of Memorandum of Understanding (MoU) between the DBT and BMGF.

### What it does?

- As India transitions from Millennium Development Goals to Sustainable Development Goals, the GCI partnership has ushered a new wave of innovative solutions to help address issues that are inextricably linked to social impact. This aims to achieve the said goals by reconnecting Science to People and available scientific data & evidences to the societal problems for finding tangible solutions.
- Programs such as Grand Challenges India are providing global innovators and researchers a fantastic platform to collaborate and progress through the innovation ecosystem by developing their ideas and concepts.
- The GCI provides financial support in the form of grants, cooperative agreements, and contracts to support the advancement of the GCI mission to enhance health, extend healthy lives, and reduce the burdens of poverty.
- The GCI covers all kinds of health and developmental priorities, ranging from maternal and child health, infectious diseases, vaccines, point-of-care diagnostics, agriculture, food and nutrition to other related arenas of developing nations as per individual requirements. Most importantly, this partnership signifies a convergence between Indian and global priorities and synergistic new initiatives of the Government such as Swachh Bharat, Start-up India and others.
- GCI promotes scientific and technological advances which aim to find solutions to key health and development challenges through research and innovation, by funding Indian researchers. Projects are selected based on national and societal need and transparent calls are made for proposals seeking the best ideas. Under this initiative, the DBT and the Gates Foundation have pledged an investment of up to US\$25 million each, over a period of 5 years.

Sources: pib.

## India wants to hasten talks on proposed global services pact

India has asked WTO to expedite the negotiation process for a global services pact, that among other things, aims to ease norms for movement of skilled workers across borders.

### Background:

India had, in February, submitted to the World Trade Organisation (WTO) a legally-vetted proposal for a Trade Facilitation in Services (TFS) Agreement. The proposal was taken up by an expert committee at the WTO headquarters in Geneva recently, and it will be considered for discussion by all the WTO members.

### About TFS agreement:

The proposed pact is similar to the WTO's Trade Facilitation Agreement (TFA) in Goods, that recently came into force, and aims to ease customs norms to boost global goods trade.

- India had specified that the proposed TFS pact is also about ‘facilitation,’ that is “making market access ‘effective’ and commercially meaningful and not about ‘new’ (or greater) market access.”
- The proposed TFS, among other things, aims to ensure portability of social security contributions and cross-border insurance coverage to boost medical tourism.

Sources: the hindu.

## UK govt certifies India's request for extradition of Vijay Mallya

India's request for extradition of industrialist Vijay Mallya, who has been declared a proclaimed offender, has been certified by UK secretary of state.

- The UK home department has conveyed that the request of India for extradition of Mallya has been certified by the secretary of state and sent to the Westminster Magistrates' Court for a district judge to consider the issue of releasing of warrant.
- The development is a step towards securing the extradition of the fugitive businessman wanted in India for loan default of over Rs 9,000 crore.

### Background:

While handing over the request, India had asserted that it has a “legitimate” case against Mallya and maintained that if an extradition request is honoured, it would show British “sensitivity towards our concerns”. Earlier in January this year, a CBI court had issued a non-bailable warrant against Mallya in the Rs 720-crore IDBI Bank loan default case.

Mallya, whose now-defunct Kingfisher Airlines owes more than Rs 9,000 crore to various banks, had fled India in March, 2016.



### What is extradition?

Extradition refers to the surrender of a criminal to one country by another. The process of extradition is regulated by treaties between the two countries. Extradition is important because it helps to maintain the sanctity of the penal code of one country or territory. The penal code says that it shouldn't apply its criminal law to a person who committed an offence outside its territories except when the crime is related to the country's national interest.

### What are the internationally accepted conditions for extradition?

- The crime done by the accused should fall in the category of dual criminality. This means that it should be a punishable offence according to the laws of both countries – the one where the accused has taken refuge, and the one that seeks extradition.
- Persons charged for political reasons are generally not extradited.
- There are countries where capital punishment is banned. If a fugitive has taken refuge in such a country, and if the establishment of that country thinks that, if extradited, the accused might get capital punishment, the country most likely refuses to extradite.

### Extradition laws in India:

- In India, the Extradition Act, 1962, regulates the surrender of a person to another country or the request for arrest of a person in a foreign land. According to the act, any conduct by a person in India or elsewhere mentioned in a list of extradition offences punishable with a minimum one year of imprisonment qualifies for an extradition request.

- The process of extradition is to be initiated by the central government. Currently, India has extradition treaties with 38 countries.
- If there is no treaty with the country from which the fugitive is to be extradited, then there aren't any defined guidelines for the law to be applied and procedure to be followed. In such a scenario, a lot depends on the cooperation and coordination between different authorities of the two countries. Another option is to resort to a Mutual Legal Assistance Treaty wherein both countries agree to exchange information in order to enforce criminal laws.
- If the extradition request comes from two or more countries, then the government has the right to take the call to decide which country is fittest for the request. Since 2002, India has extradited 44 fugitive criminals to various countries. On the contrary, India has got 61 criminals extradited to itself from different countries since 2002.

Sources: the hindu.

### Paper 2 Topic: India and its neighbourhood- relations.

## India to attend Lahore meet on Indus Waters Treaty

Signalling a major shift in its position on talks with Pakistan on the Indus Waters Treaty (IWT), India has accepted an invitation to attend the next meeting of the Permanent Indus Commission (PIC) to be held in Lahore in March.

- The move came after two months of diplomatic negotiations, with World Bank officials playing mediator in encouraging Pakistan to extend the invitation and for India to accept.
- A look at the two major hydro electric projects- Kishenganga and Ratle- in Jammu and Kashmir may be taken up in the meeting.

### **About Indus Water Treaty:**

The Indus Waters Treaty is a water-distribution treaty between India and Pakistan, brokered by the World Bank. The treaty was signed in Karachi on September 19, 1960 by Prime Minister of India Jawaharlal Nehru and President of Pakistan Ayub Khan.

- According to this treaty, waters of the three western rivers (the Jhelum, the Chenab, and the Indus itself) were allocated to Pakistan, and those of the three eastern rivers (the Ravi, the Beas, and the Sutlej) were allocated to India.
- Indus Waters Treaty has remained a bone of contention between India and Pakistan. Earlier, India had reviewed the IWT and decided to fully utilise its share water of rivers as per its rights under the pact.
- Under the IWT, which covers the water distribution and sharing rights of six rivers — Beas, Ravi, Sutlej, Indus, Chenab and Jhelum, the World Bank has a specified role in the process of resolution of differences and disputes.

### **What is PIC?**

Permanent Indus Commission is a bilateral commission of officials from India-Pakistan, created to implement and manage goals of Indus Waters Treaty. Under the treaty, it is required that India and Pakistan meet every financial year. The Indus Commission is the first step for conflict resolution. If an agreement cannot be reached at the Commission level, the dispute is to be referred to the two governments. If the governments too fail to reach an agreement, the Treaty provides an arbitration mechanism. The last meeting of the commission was held in July 2016.

### **Background:**

The **Kishanganga Hydroelectric Plant** is an \$864 million dam which is part of a run-of-the-river hydroelectric scheme that is designed to divert water from the Kishanganga River to a power plant in the Jhelum River basin. It is located 5 km north of Bandipore in Jammu and Kashmir, India and will have an installed capacity of 330 MW. Construction on the project began in 2007 and is expected to be complete in 2016. Construction on the dam was temporarily halted by the Hague's Permanent Court of Arbitration in October 2011 due to Pakistan's protest of its effect on the flow of

the Kishanganga River (called the Neelum River in Pakistan). In February 2013, the Hague ruled that India could divert a minimum amount of water for power generation.

The **Ratle Hydroelectric Plant** is a run-of-the-river hydroelectric power station currently under construction on the Chenab River, downstream of the village of Ratle in Doda district of the Indian state of Jammu and Kashmir. The project includes a 133 m (436 ft) tall gravity dam and two power stations adjacent to one another.

Sources: the hindu.

## Half of India-Bangladesh border fenced

Half of the 4,096-km border India shares with Bangladesh has been fenced. Land acquisition is a major challenge to completing the work by the 2019 deadline. Fencing is mainly aimed to curb infiltration and smuggling of cattle and fake Indian currency notes.

- Across rivers, where fencing is not possible, the government going in for technological solutions such as cameras and lasers.

### Background:

The border runs along West Bengal for 2,216.7 km, Assam 263 km, Meghalaya 443 km, Tripura 856 km and Mizoram 318 km.



Sources: the hindu.

## 13th Executive Committee Meeting of the International Smart Grid Action Network (ISGAN) inaugurated

The Ministry of Power, Government of India is hosting the 13th Executive Committee (ExCo) Meeting of the International Smart Grid Action Network (ISGAN) at POWERGRID Corporate Center, Gurugram. This is the first ever Executive Committee Meeting of ISGAN being held in India.

- Smart Grid implementation in India would get a boost from deliverables obtained through decisions and actions taken in 13th ISGAN ExCo Meeting as ISGAN aims to improve the understanding of smart grid technologies, practices and promote adoption of related enabling government policies.
- The dynamic knowledge sharing, technical assistance and project coordination and periodic ISGAN reports on progress and projects being undertaken in the field of Smart Grids across the world would also be helpful in suitable deployment of Smart Grid technologies in India.
- A total of 36 representatives from 18 countries namely Austria, Belgium, Canada, France, Germany, India, Italy, Japan, Korea, Norway, Russia, South Africa, Singapore, Spain, Sweden, Switzerland, US and UAE are participating in this event.

### What is ISGAN?

ISGAN is an agreement under **International Energy Agency (IEA)** and consists of representatives from 25 countries across the globe.

- India is one of the founding Member of ISGAN and Joint Secretary (Distribution), Ministry of Power, is the member representative of India.
- ISGAN creates a mechanism for multilateral government-to-government collaboration to advance the development and deployment of smarter electric grid technologies, practices and systems.
- ISGAN facilitates dynamic knowledge sharing, technical assistance, and project coordination, where appropriate. ISGAN participants report periodically on progress and projects to the Ministers of the Clean Energy Ministerial, in addition to satisfying all IEA Implementing Agreement reporting requirements.
- Membership in ISGAN is voluntary, and currently includes Australia, Austria, Belgium, Canada, China, Denmark, European Commission, Finland, France, Germany, India, Ireland, Italy, Japan, Korea, Mexico, the Netherlands, Norway, Russia, Singapore, South Africa, Spain, Sweden, Switzerland and the United States.
- Consistent with the IEA Framework for International Energy Technology Co-Operation, ISGAN is open to governments of IEA Member as well as non-Member countries, upon invitation of the ISGAN Executive Committee.
- Though the primary focus is on government-to-government cooperation, ISGAN is also open to entities designated by participating governments, and select private sector and industry associations and international organizations.

#### **Background:**

ISGAN was launched as the International Smart Grid Action Network at the first Clean Energy Ministerial (CEM), a meeting of energy and environment ministers and stakeholders from 23 countries and the European Union held in Washington, D.C on July 19 and 20, 2010. The CEM focuses on high-level attention and commitment to concrete steps—both policies and programs—that accelerate the global transition to clean energy. The Ministerial was an outgrowth of the agreement at the Major Economies Forum on Energy and Climate (MEF) in L’Aquila, Italy in July 2009, where countries agreed to collaborate on advancing clean energy technologies.

#### **Significance of smart grids:**

ISGAN recognizes that robust, reliable, and smart electric grids play a key role in enabling greenhouse gas (GHG) emission reductions through the management of electricity demand, integration of growing supplies of both utility-scale and distributed, small-scale renewable energy systems, accommodation of an increasing number of electric and plug-in hybrid electric vehicles, improvement of operational efficiency, and application of energy efficient technologies to their full potential.

Smart Grids also enable better utilization of existing electricity generation assets, thereby creating opportunities to forgo the addition of new long-lived, high emissions fossil fuel plants. In coordination with the International Energy Agency (IEA) and others, ISGAN seeks to improve understanding of the potential for Smart Grid technologies to enable reductions in GHG emissions and energy use at country, regional, and global levels. It focuses high-level government attention on the promise of Smart Grid to achieve such reductions as well as the challenges to accelerating their deployment.

Sources: pib.

## **Definitive Agreement on Oil Storage and Management between Indian Strategic Petroleum Reserve Ltd (ISPRL) and Abu Dhabi National Oil Company (ADNOC) of UAE**

The Union Cabinet has given its ex-post facto approval for signing of the Definitive Agreement on Oil Storage and Management between Indian Strategic Petroleum Reserve Ltd (ISPRL) and Abu Dhabi National Oil Company (ADNOC) of UAE.

### **Key facts:**

- According to the Agreement, the ADNOC will fill up 0.81 MMT or 5,860,000 million barrels of crude oil at ISPRL storage facility at Mangalore, Karnataka.
- Out of the crude stored, some part will be used for commercial purpose of ADNOC, while a major part will be purely for strategic purposes. The signing of the Agreement will augment India's energy security.
- India and UAE are strategic partners. The investment by ADNOC is a major investment from UAE under the High Level Task Force on Investment (HLTFI) and the first investment by UAE in India in the energy sector.

### **Background:**

To ensure energy security, the Government of India had decided to set up 5 million metric tons (MMT) of strategic crude oil storages at three locations namely, **Visakhapatnam, Mangalore and Padur** (near Udupi). These strategic storages would be in addition to the existing storages of crude oil and petroleum products with the oil companies and would serve as a cushion during any external supply disruptions.

The construction of the Strategic Crude Oil Storage facilities is being managed by Indian Strategic Petroleum Reserves Limited (ISPRL), a Special Purpose Vehicle, which is a wholly owned subsidiary of Oil Industry Development Board (OIDB) under the Ministry of Petroleum & Natural Gas. Engineers India Limited (EIL) is taken as the Project Management Consultant for all three projects.

The crude oil storages are constructed in underground rock caverns and are located on the East and West coast of India. Crude oil from these caverns can be supplied to the Indian Refineries either through pipelines or through a combination of pipelines and ships. Underground rock caverns are considered the safest means of storing hydrocarbons.

Sources: pib.

## **Cabinet approves MoU between India and the United Nations Entity of Gender Equality and Empowerment of Women (UN-Women)**

Union Cabinet has approved the signing of Memorandum of Understanding (MoU) between India and the United Nations Entity of Gender Equality and the Empowerment of Women (UN-Women).

### **Key facts:**

- The proposal seeks to provide technical support to the Ministry of Panchayati Raj in strengthening capacities of governance institutions including Panchayati Raj Institutions(PRIs) to better leverage opportunities created for gender equality through legislation, policies and programmes.
- The parties agree that engendering the initiatives of MoPR, including capacity development efforts, will be of mutual benefit, and will further their shared mission of good governance, gender equality and women's empowerment.
- In the long run, it will enable an improvement in the status of rural women in India, as well as contribute to meeting India's commitment to the Convention to Eliminate All Forms of Discrimination Against Women (CEDAW), the Beijing Platform for Action and the Sustainable Development Goals.
- The proposed MoU will facilitate the achievement of time-bound results in the implementation of specific activities identified jointly by MoPR and UN Women within the broader framework for cooperation under the United Nations Development Assistance Framework ((UNDAF). This MoU would thus facilitate operationalizing this important partnership.
- Activities under this MoU will be implemented at the district and sub-district level in six States i.e. Andhra Pradesh, Telengana, Odisha, Karnataka, Rajasthan and Madhya Pradesh.

## **About UN Women: The United Nations Entity for Gender Equality and the Empowerment of Women:**

UN Women is the UN entity dedicated to gender equality and the empowerment of women. UN Women was established to accelerate progress on meeting their needs worldwide.

In July 2010, the United Nations General Assembly created UN Women, the United Nations Entity for Gender Equality and the Empowerment of Women. In doing so, UN Member States took an historic step in accelerating the Organization's goals on gender equality and the empowerment of women. The creation of UN Women came about as part of the UN reform agenda, bringing together resources and mandates for greater impact.

**It merges and builds on the important work of four previously distinct parts of the UN system, which focused exclusively on gender equality and women's empowerment:**

- Division for the Advancement of Women (DAW).
- International Research and Training Institute for the Advancement of Women (INSTRAW).
- Office of the Special Adviser on Gender Issues and Advancement of Women (OSAGI).
- United Nations Development Fund for Women (UNIFEM).

**The main roles of UN Women are:**

- To support inter-governmental bodies, such as the Commission on the Status of Women, in their formulation of policies, global standards and norms.
- To help Member States to implement these standards, standing ready to provide suitable technical and financial support to those countries that request it, and to forge effective partnerships with civil society.
- To hold the UN system accountable for its own commitments on gender equality, including regular monitoring of system-wide progress.

Sources: pib.

## **Cabinet approves India's accession to the Customs Convention on International Transport of Goods under cover of TIR Carnets (TIR Convention)**

The Union Cabinet has given its approval for India's accession to the Customs Convention on International Transport of Goods under cover of **TIR Carnets (TIR Convention)** and for completion of necessary procedures for ratification, for its entry into force.

### **How will this help India?**

- The Convention will help Indian traders to have access to fast, easy, reliable and hassle free international system for movement of goods by road or multi- modal means across the territories of other contracting parties.
- By joining the convention, the need for inspection of goods at intermediate borders as well as physical escorts en route shall be obviated due to reciprocal recognition of Customs controls. Customs clearance can take place at internal Customs locations thereby avoiding clearances at Border Crossing Points and ports that may often be congested.
- Movement under the TIR can be allowed by checking only the seals and the external conditions of the load compartment or the container thereby reducing border delays, transport and transaction costs thereby leading to increased competitiveness and growth for the trade and transport sectors.
- Compliance with the Convention shall ensure enhanced security in the supply chain as only approved transporters and vehicles are allowed to operate in terms of the Convention. As the TIR Carnet represents a guarantee for Customs duties and taxes and traffic in transit, there is no need for payment of such taxes and duties en route.

- The TIR carnet also serves as a Customs declaration, and hence it precludes the need to file multiple declarations satisfying national laws of the different transiting countries.
- The TIR Convention can be an instrument for movement of goods along the International “North-South” Transport (INSTC) Corridor and would be helpful in boosting trade with the Central Asian Republics and other Commonwealth of Independent States (CIS), particularly using ports in Iran like the Chabahar port.
- The proposal does not result in any direct financial implication for the Government of India as it pertains to India’s accession to an international convention.

#### **Background:**

The **Customs Convention on International Transport of Goods under cover of TIR Carnets, 1975 (TIR Convention)**, is an international transit system under the auspices of the United Nations Economic Commission for Europe (UNECE) to facilitate the seamless movement of goods within and amongst the Parties to the Convention. At present there are 70 parties to the Convention, including the European Union.

- The 1975 convention replaced the TIR Convention of 1959, which itself replaced the 1949 TIR Agreement between a number of European countries.
- The TIR system not only covers customs transit by road but a combination is possible with other modes of transport (e.g., rail, inland waterway, and even maritime transport), as long as at least one part of the total transport is made by road.

Sources: pib.

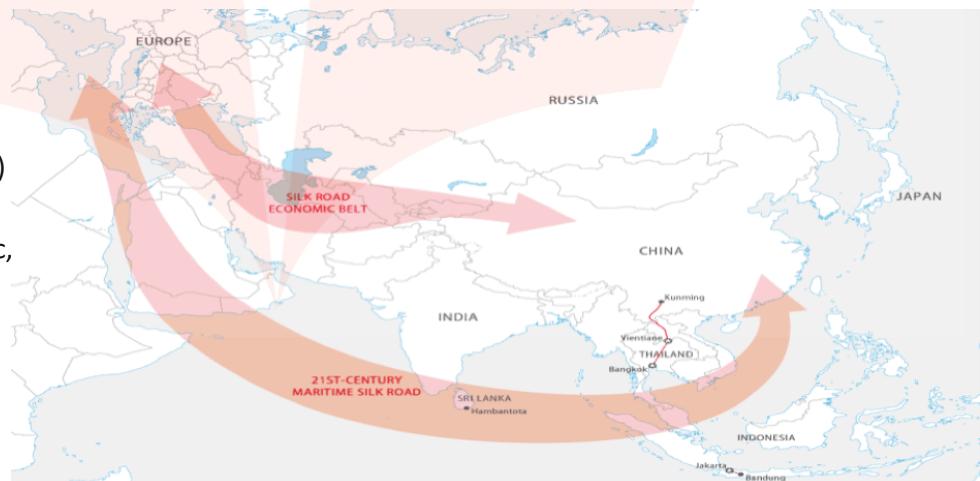
### **China planning five-fold increase in marine force**

China is set to rapidly expand its marine corps and the Navy in anticipation of the development of its Maritime Silk Road (MSR), which covers the Pakistani port of Gwadar, and Djibouti in the Horn of Africa.

- According to a report, China is planning a five-fold increase in its marine force — from 20,000 to 100,000 personnel.
- Some of the Chinese marines would be stationed at Djibouti in the Horn of Africa, and the Pakistani port of Gwadar, the starting point of the China-Pakistan Economic Corridor.

#### **Background:**

An expanded marine corps could help maintain security for China’s “One Belt, One Road” (OBOR) initiative. In tune with the OBOR and friction in the West Pacific, China’s Prime Minister Li Keqiang recently highlighted that Beijing would “move ahead to become a strong maritime power and is resolute in protecting its maritime rights”.



#### **What is OBOR?**

The ‘One Belt’ and ‘One Road’ refer to China’s proposed ‘Silk Road Economic Belt’ and ‘Maritime Silk Road’.

Connectivity covers five major areas of interest: policy coordination, infrastructure construction (including railways and highways), unimpeded trade, financial integration and people-to-people ties. Among these, infrastructure construction is the dominant feature of the New Silk Road.

## Gilgit-Baltistan to be declared a Province

Pakistan is planning to declare the strategic Gilgit-Baltistan region as its fifth Province, a move that may raise concerns in India as it borders the disputed Pakistan-occupied Kashmir.

### Why is India concerned?

Gilgit-Baltistan is treated as a separate geographical entity by Pakistan. It has a regional Assembly and an elected Chief Minister. It is believed that China's concerns about its unsettled status prompted the move, which could signal a historic shift in the country's position on the future of the wider Kashmir region.

Gilgit-Baltistan shares a geographical boundary with Pakistan-occupied Kashmir, and India considers it as part of the undivided Jammu and Kashmir, while Pakistan sees it as a separate from PoK. The USD 46 billion China-Pakistan Economic Corridor (CPEC) also passes through this region.

### Where is Gilgit Baltistan located?

It is located in the northern Pakistan. It borders China in the North, Afghanistan in the west, Tajikistan in the north west and Kashmir in the south east.

Gilgit-Baltistan is home to five of the "eight-thousanders" and to more than fifty peaks above 7,000 metres (23,000 ft). Three of the world's longest glaciers outside the polar regions are found in Gilgit-Baltistan.

## Why is the World Bank keen on resolving Indus divide?

After her recent visit to India and Pakistan, World Bank Chief Executive Officer Kristalina Georgieva reiterated that the Bank was keen on resolving the disagreements between the two nations over the interpretation of the Indus Waters Treaty (IWT) following the construction by India of two hydroelectric power plants.

### Background:

Though the two nations have had no fresh conflict over the sharing of river waters for more than five decades, differences cropped up after Pakistan opposed the construction of the Kishenganga (330 MW) and Ratle (850 MW) power plants by India on the Jhelum and Chenab in Jammu and Kashmir, over which Pakistan has unrestricted rights under the treaty.

### Why did the Bank intervene?

Even before Partition, the Indus had created problems among the states of British India. The problems became international after the creation of two nations as the political boundary was drawn right across the Indus basin. The World Bank (then IBRD), under the presidency of Eugene Black, helped in 1952 to settle the dispute between the two nations on the sharing of the Indus river basin waters. He had said the escalation of the dispute would damage the economic development of the Indian subcontinent. After eight years of hard negotiations, Prime Minister Jawaharlal Nehru and President Ayub Khan signed the IWT on September 19, 1960. The Bank is also a signatory to the treaty. The IWT is a complex instrument, comprising 12 articles and eight annexures. It sets forth provisions of cooperation between the two countries in their use of the rivers, known as the Permanent Indus Commission (PIC).

### Has there been any violation?

According to the IWT, India has control over three eastern rivers of the Indus basin — the Beas, the Ravi and the Sutlej — and Pakistan has control over the three western rivers — the Indus, the Chenab and the Jhelum. All six rivers flow from India to Pakistan. Among other uses, India is permitted to construct power facilities on these rivers subject to regulations laid down in the treaty. India had asked the bank for appointment of a neutral expert following Pakistan's objections to two projects, while Pakistan demanded the formation of a court of arbitration, alleging that India had

violated the treaty. In December 2016, the Bank announced a ‘pause’ and asked both parties to resolve the issue amicably by the end of January 2017.

### **What stand did the Bank take?**

India welcomed the Bank’s neutral stand, while Pakistan sought intervention of the Bank after being unable to find an amicable solution to the dispute through the commission. Given that India has remained the Bank’s single largest borrower since its inception with cumulative borrowings from IBRD and IDA touching \$103 billion, the bank did not perhaps want to upset it.

With buoyancy in foreign exchange reserves, the Bank needs India more than the other way round and this has created some anxiety in the Bank circles about the future direction of their relationship.

### **Why is the Bank playing a role again?**

This is because India and Pakistan are important partners and clients of the Bank. In South Asia, Pakistan (\$2,280 million) received the highest lending from the Bank after India (\$3,845 million) during the fiscal 2016. Moreover, there are not too many borrowers with a credible record like India.

The Bank maintained its aid could be effectively used if both nations kept the peace and ensured better management of the waters, on which lakhs of farmers depend. As both nations have failed to resolve the dispute amicably, the Bank CEO has initiated a dialogue. Changing its stance, India has agreed to attend a meeting of the commission in Lahore next week. Like in the 1950s, Bank officials are again playing the role of mediator.

Sources: the hindu.

## **New Delhi, Kabul talks soon to boost trade**

India will soon hold talks with Afghanistan on ways to boost bilateral trade and investment. This move is also aimed at mounting pressure on Islamabad to facilitate trouble-free transit of goods from India to Afghanistan through Pakistan (Wagah-Attari route).

### **Significance of transit through Pakistan:**

This is to help in the development of Afghanistan which is a land-locked and Least Developed Country (LDC) as well as to boost trade and investment in South Asia through better regional connectivity. It will also help India to improve trade ties with Central Asian nations.

In the absence of transit route through Pakistan, India depends on other countries, including Iran, to send goods to Afghanistan even though it increases time and costs for Indian exporters.

### **APTTA:**

Thanks to the Afghanistan-Pakistan Transit Trade Agreement (APTTA), Afghanistan can use Pakistan’s territory for transit trade while Pakistan’s goods can move through Afghanistan to nations bordering Afghanistan. However, Islamabad has not agreed to allow using APTTA for goods to be transported from India to Afghanistan through Pakistan’s territory (via the Wagah-Attari route).

India is keen to join APTTA and Afghanistan has backed India’s readiness to be an APTTA member but Pakistan has so far rejected such a proposal.

### **Way ahead:**

In this regard, the ‘India-Afghanistan Joint Working Group on Trade, Commerce and Investment’ meeting will discuss ways to make use of the **United Nations TIR (Transports Internationaux Routiers or International Road Transport) Convention** to boost trade between India and Afghanistan through Pakistan.

The TIR Convention facilitates trade and international road transport by permitting customs-sealed vehicles and containers to transit nations without them being generally inspected at border crossings. Pakistan and Afghanistan are also 'contracting parties' to the TIR Convention.

#### **Background:**

India-Afghanistan goods trade had jumped nearly 22% to \$834.5 million in 2015-16 with India's exports to Afghanistan being \$526.6 million and its imports from Afghanistan worth \$307.9 million. However, it is still far below potential. During April-December 2016-17, the bilateral trade was to the tune of \$590.1 million with India's exports to Afghanistan being \$377.2 million and imports from Afghanistan worth \$212.9 million. India's main export items to Afghanistan are textiles, pharmaceuticals, tobacco, iron & steel and electrical machinery, while its imports from Afghanistan are fruits and nuts, gums and resins, coffee, tea and spices.

Sources: the hindu.

## **India, Pakistan to review Miyar project**

India and Pakistan have agreed on redesigning the **Miyar Hydroelectric project**, at the end of two-day talks of Indus Water Commissioners in Islamabad.

#### **Background:**

The 113th meeting of the Permanent Indus Commission was the first since India suspended dialogue under the 1960 Indus Waters Treaty following a militant attack on an Indian military base in Uri in September last year.

Pakistan has been flagging concerns over the designs of five Indian hydroelectric projects: 1000MW Pakal Dul, 850MW Ratle, 330MW Kishanganga, 120MW Miyar and 48MW Lower Kalnai. The projects are being built or planned in the Indus river basin.



#### **About Miyar project:**

The project envisages an installation of 120 MW capacity and has been awarded to Hindustan Power through the international competitive bidding process. The project component comprises of a construction of a 25 m high diversion structure, about 6.6 km long headrace tunnel, an open to sky restricted orifice surge tank, a surface powerhouse complex on the right bank of river Chenab near Udaipur town.

Sources: the hindu.

## 'Free trade should be fair too'

In an indication that increased market access for American companies will be a key priority in his engagement with New Delhi, U.S. President Donald Trump indirectly mentioned the 100% duty that India imposes on high-end motorcycles as a case of unfair trade practice and vowed to change it, in his first address to Congress.

### **Background:**

Mr. Trump did not take India's name, but India is the only major country that has a 100% customs duty on motorcycles. American company Harley-Davidson has been seeking a duty reduction for several years now.

### **Concerns:**

According to experts, the Trump administration will be less concerned about balancing trade issues with strategic concerns. For India, that means that sectors with price controls, high customs duties, or compulsory local manufacturing rules may increasingly be on the radar screen.

Sources: the hindu.

## Aleppo report accuses all sides of brutal war crimes

A [UN-established commission](#) has issued a damning report on human rights violations in Syria's war-ravaged Aleppo, accusing both sides to the conflict of committing war crimes.

- The commission gathered evidence to confirm witness accounts that the Syrian and Russian governments used prohibited cluster munitions on civilians in rebel-held eastern Aleppo, suggesting the deliberate destruction of hospitals with repeated airstrikes, among other rights violations.



### **Key facts:**

- The report looked at violations committed last year between July 21, when the rebel-held part of Aleppo was besieged, and Dec. 22, when Syrian troops and allied forces assumed full control of the city. In perhaps the most damning discovery the commission said that evacuations were a military tactic — not a humanitarian effort.
- The report concludes that the six-month siege of the city, "was a stage of unrelenting violence."
- It notes that civilians from both sides were left trapped in the eastern part of Aleppo without adequate food or medical supplies as Syrian and Russian forces conducted daily air strikes that killed hundreds and decimated hospitals, schools and markets. The situation was so severe that as civilians tried to flee they were violently forced to stay by armed groups and used as human shields. In the western part of the city, rebel groups would often fire indiscriminately killing and injuring dozens — including women and children.
- By early September, pro-Government [forces] had renewed and secured the siege. Faced with a protracted humanitarian catastrophe, confined armed groups began a concerted campaign of shelling western Aleppo neighborhoods over the next three months.

- Attacks were predominantly characterized by indiscriminate, indirect artillery fire into dense urban terrain, often with no apparent legitimate military objective, the effect of which terrorized the inhabitants of western Aleppo city.
- Among the commission's findings is that Russian and Syrian warplanes dropped unguided munitions, known as "dumb bombs," and that the Syrian government intentionally carried out airstrikes on a humanitarian convoy in the rural outskirts of western Aleppo last September.
- The report observed that by using air-delivered munitions with the knowledge that humanitarian workers were operating in the location, Syrian forces committed the war crimes of deliberately attacking humanitarian relief personnel, denial of humanitarian aid, and attacking civilians.

### **Background:**

The northern Syrian city of Aleppo was caught in a brutal four-year deadlock. It was a key battleground in the war between forces loyal to President Bashar al-Assad and rebels who want to overthrow him.

In November, Syrian government forces launched a renewed assault, and rapidly retook almost all of the opposition-held east. By mid-December they had pushed the rebels into just a few neighbourhoods.

Tens of thousands of civilians fled those districts. The UN said it had received allegations that hundreds of men had gone missing since crossing into government-controlled areas – and that rebels prevented some civilians from leaving.



### **Aleppo:**

Aleppo was once Syria's largest city, with a population of about 2.3 million. It was also the country's industrial and financial centre. The old city is a Unesco World Heritage site and was famous for its 13th Century citadel, 12th Century Great Mosque and huge covered markets.

Sources: the hindu.

## **Syrian Army recaptures Palmyra**

The Syrian Army has recaptured the ancient city of Palmyra from Islamic State (IS) for the second time in a year, with help from allied forces and Russian war-planes.

### **Background:**

IS is on the back foot in Syria after losing territory in the north to an alliance of U.S.-backed, Kurdish-led militias, and to Turkey-backed Syrian rebels. The Syrian Army is also fighting IS in the area east of Aleppo and in the city of Deir al-Zor, where it controls an enclave that is besieged by the group.



### **About Palmyra:**

Palmyra contains the monumental ruins of a great city that was one of the most important cultural centres of the ancient world. From the 1st to the 2nd century, the art and architecture of Palmyra, standing at the crossroads of several civilizations, married Graeco-Roman techniques with local traditions and Persian influences.

Palmyra is a UNESCO designated World Heritage site and home to some of the world's most magnificent ancient ruins. The city is mentioned in the Hebrew Bible and was eventually incorporated into the Roman Empire, before passing to almost all empires to have operated in the region over some 2,000 years.

Sources: the hindu.

## Sweden to reintroduce conscription after 6 years

Sweden has announced that it will reintroduce compulsory military service starting this summer to respond to global security challenges, including from Russia.

### Background:

The Scandinavian nation, which has not seen armed conflict on its territory in two centuries, ended conscription in 2010 after it was deemed an unsatisfactory way of meeting the needs of a modern army. The government wants a more stable staff supply system and to boost its military capability because the security situation has changed.

### Key facts:

- Sweden's government is set to introduce to the Parliament a bill to restore conscription this summer for all Swedes born after 1999. It will last for 11 months.
- Some 13,000 young Swedes are expected to be mobilised from July 1, but only 4,000 of them will be selected for military service based on motivation and skills. They will be called up each year after January 1 2018.

### About Sweden:

Sweden is a Scandinavian country in Northern Europe. It is the third-largest country in the European Union by area, with a total population of 10.0 million.

- Situated in Northern Europe, Sweden lies west of the Baltic Sea and Gulf of Bothnia, providing a long coastline, and forms the eastern part of the Scandinavian Peninsula. To the west is the Scandinavian mountain chain (Skanderna), a range that separates Sweden from Norway. Finland is located to its north-east.
- It has maritime borders with Denmark, Germany, Poland, Russia, Lithuania, Latvia and Estonia, and it is also linked to Denmark (south-west) by the Öresund Bridge. Its border with Norway (1,619 km long) is the longest uninterrupted border within Europe.
- Sweden is not a NATO member but has signed the body's Partnership for Peace programme launched in 1994 to develop military cooperation between NATO and non-member countries.

Sources: the hindu.

## Donald Trump signs 'Muslim Ban 2.0' order

The Donald Trump administration has issued a new executive order, temporarily banning travel from six Muslim-majority countries to the U.S., after an earlier order ran foul of the country's judiciary.

### Key facts:

- The new executive order bans travel from six countries — Sudan, Syria, Iran, Libya, Somalia, and Yemen, leaving out Iraq that was also in the list of barred countries in the January order.
- In an attempt to pass the next round of inevitable judicial scrutiny, current visa and green card holders from these countries will not be affected by this order.
- The new order will not come into effect until March 16, in contrast with the earlier order that was effective immediately, leading to confusion at airports and leaving many people in transit stranded.
- The order notes there will be a 90-day ban on the issuance of new visas for citizens of these six countries, and nation's refugee program will be suspended for 120 days. While the temporary ban is in place for 90 days, the U.S. administration will review the security measures in place to prevent potential threats from gaining a U.S. visa.
- The order said each of the six countries was a "state sponsor of terrorism, has been significantly compromised by terrorist organisations or contains active conflict zones." The order gives country-wise details justifying the

inclusion of each and also explains the exclusion of Iraq. Iraq presents a special case. Portions of Iraq remain combat zones, but the country's commitment to combat ISIS justify different treatment for Iraq.

- In justification of the order, the administration said people who entered the U.S on visas or as refugees from these countries have "proved to be threats to national security." The Attorney-General has reported to me that more than 300 persons who entered the U.S. as refugees are currently subjects of counter-terrorism investigations by the Federal Bureau of Investigations (FBI).

Sources: the hindu.

## No change in India's stance on UNSC veto

India and other G4 countries have said that they are willing to consider **temporarily suspending** their veto rights when and if they are made permanent members of the UN Security Council.

- This change of heart is meant to hasten the process of making the G4 countries – India, Brazil, Germany and Japan – permanent members of the elite UN body sooner rather than later.

### Background:

The G-4 have been seeking an expansion of the UNSC, where the five countries are permanent members reflecting the post World War II order in 1945. There are 15 members in the UNSC, five are permanent and 10 are elected for two-year terms.

### Why UNSC reforms are required?

- Global politics has changed a lot – as regards its power, structure, rules, and norms since the formation of the UN. The world has witnessed a redistribution of power and emergence of new power centres, along with a transformation from the era of colonialism to that of post-colonial independent states. Existing membership and functioning of the UNSC reflects the realities of a bygone era.
- As a global institution to promote international peace and security, the UNSC is not responding to changes taking place in the world. The only change hitherto has been an increase in the number of non-permanent members in the UNSC from six to ten, that too as far back as 1965.
- Another criticism is that the permanent panel in UNSC lacks representation from Africa and Latin America.

Sources: the hindu.

## Pakistan's Hindu marriage bill passed by both houses of Parliament

A landmark bill to regulate marriages of Pakistan's Hindu minority has been unanimously passed by the lower house of Parliament, paving the way for adoption of a comprehensive and widely acceptable family law for Hindus. The Hindu Marriage Bill 2016 is the first personal law for the minority community and will help Hindu women get documentary proof of their marriage, which is needed while applying for passports and other official documents.

### Key facts:

- The bill will be applicable in Balochistan, Khyber-Pakhtunkhwa and Punjab provinces. Southern Sindh province, which is home to a majority of Pakistan's Hindus, has already enacted its own Hindu marriage law.
- The bill aims at easing growing insecurity among Hindus. For the first time in Pakistan's history, the bill provides a mechanism for registering Hindu marriages, conditions for contracting a marriage, and the procedure and grounds for dissolving a marriage.
- According to its provisions, both parties to a marriage must be of sound mind and capable of giving valid consent. The parties also must not be below the age of 18, a measure aimed at preventing the marriage of minors.

- It paves the way for a document called the ‘Shadi Parath’ – similar to the Nikahnama for Muslims – that will contain details of the bride and groom and be signed by a pundit before it is registered with the relevant government department.
- It also provides the concept of judicial separation, where the marriage remains intact while the parties are no longer under an obligation to cohabit. The legitimacy of children born out of voidable Hindu marriages has also been protected.

Sources: the hindu.

## Scotland seeks split from UK over Brexit

Scotland’s leader Nicola Sturgeon has said she will seek authority for a new independence referendum because Britain is dragging Scotland out of the European Union against its will.

### **Background:**

Nicola Sturgeon wants Scotland a referendum post-Brexit so voters can make “an informed choice”. Scotland rejected independence in 2014 referendum. In the Brexit vote, Scots strongly backed staying in the EU.

### **What does Brexit mean?**

It is a word that has become used as a shorthand way of saying the UK leaving the EU – merging the words Britain and exit to get Brexit.

### **Why is Britain leaving the European Union?**

A referendum – a vote in which everyone (or nearly everyone) of voting age can take part – was held on Thursday 23 June, 2016, to decide whether the UK should leave or remain in the European Union. Leave won by 51.9% to 48.1%. The referendum turnout was 71.8%, with more than 30 million people voting.

### **Where is Scotland located?**

Scotland is a part of the United Kingdom (UK) and occupies the northern third of Great Britain. Scotland’s mainland shares a border with England to the south. It is home to almost 800 small islands.

- Scotland’s location is to the mid-west of Europe and is surrounded by several different seas. Located to the east of Scotland is the North Sea, which divides the country from other areas of Europe, in particular Norway and the rest of Scandinavia. Across the North Sea to the south-east is Denmark and further south still is Germany.
- North and west of Scotland’s mainland is the Atlantic Ocean. To the south-west, across the Irish Sea, is Scotland’s closest neighbouring island of Northern Ireland and Eire.

Sources: the hindu.

## Indian drugmakers face squeeze in U.S. healthcare market

India’s small and medium-sized generic drugmakers are reconsidering, or putting on hold, U.S. expansion plans.

### **Why?**

- It is because of the threat of tougher rules and higher barriers for outsiders in the U.S. healthcare market. A more protectionist stance by President Donald Trump, with the prospect of import tariffs and the U.S. boosting local drug manufacturing, mean the operating environment for smaller generic players will get worse.
- Consolidation among U.S. drugs distributors and a federal investigation into drug pricing have also reduced the pricing power of drugmakers.
- The U.S. drugs regulator, the Food and Drug Administration, has also banned dozens of Indian drug factories from supplying the U.S. market following inspections that found inadequate quality-control practices. Companies have invested significant sums to raise their quality standards.

## **Background:**

India supplies nearly a third of medicines sold in the United States, the world's largest healthcare market. Cut-price generics sold by India's small- and medium-sized drugmakers have been critical in bringing down prices there.

The new risks come as U.S. revenue growth for these firms is falling. U.S. revenues for Indian drugmakers rose 15% in 2016, half the average annual growth rate of 33% between 2011 and 2015. The growth rate is expected to fall further this year.

## **Way ahead:**

Firms that want to focus on the United States will have to increase investment in higher-margin niche therapies, or products requiring specialized manufacturing.

Sources: the hindu.

## **Norway is the world's happiest country**

**World Happiness Report** for the year **2017** has been released. The World Happiness Report is a measure of happiness published by the **United Nations Sustainable Development Solutions Network**.

- The World Happiness Report 2017 was released by the United Nations on the **International Day of Happiness (March 20<sup>th</sup>)**. It is the fifth such report since the first was published in 2012.
- The rankings are based on gross domestic product per person, healthy life expectancy with four factors from global surveys. In those surveys, people give scores from 1 to 10 on how much social support they feel they have if something goes wrong, their freedom to make their own life choices, their sense of how corrupt their society is and how generous they are.

## **Performance of various countries:**

- Norway occupies the top position. It surged from fourth place in last year's UN assessment all the way to the top spot. Other top countries on the list included Nordic neighbours Denmark and Iceland, as well as nearby Switzerland.
- All of the top four countries rank highly on all the main factors found to support happiness: caring, freedom, generosity, honesty, health, income and good governance.
- Rounding out the top 10 were Finland, in fifth place, the Netherlands (6), Canada (7), New Zealand (8), and Australia and Sweden tied for 9th.
- The entire top 10 were affluent, developed nations, although money is not the only ingredient for happiness. In fact, among the wealthier countries the differences in happiness levels had a lot to do with differences in mental health, physical health and personal relationships: the biggest single source of misery is mental illness.
- Another major country, China, has made major economic strides in recent years. But its people are not happier than 25 years ago. China ranked 79th in the study of 155 countries.
- India is ranked at 122 out of 155 countries, four notches below its previous rank of 118. India was behind the majority of South Asian Association for Regional Cooperation (Saarc) nations, apart from war-ravaged Afghanistan, that stood at 141.
- Among the eight Saarc nations, Pakistan was at 80th position, Nepal stood at 99, Bhutan at 97, Bangladesh at 110 while Sri Lanka was at 120. However, Maldives did not figure in the World Happiness Report.

Sources: the hindu.

## **Pakistan returns to SAARC, gets Secretary General post**

After months of difficulty posed mainly by India, Pakistan has succeeded in getting its official elected to the post of the Secretary General of the South Asian Association for Regional Cooperation (SAARC). This was backed by all members, including India, which made the selection consensus-based.

### **Background:**

As the incoming chair, Pakistan was supposed to provide the next Secretary General. The new chief of SAARC was expected to take charge a year ago. Earlier, India had opposed holding of the 19th SAARC summit in Islamabad in November 2016 following the terror strike in Uri.

### **About Secretary General SAARC:**

The Secretary-General of the South Asian Association for Regional Cooperation, is the head of the SAARC Secretariat, which is headquartered in Kathmandu, Nepal. The Secretary-General is appointed for a three-year term by election by a council of Ministers from member states. The Secretary-General is assisted by eight deputies, one from each nation, who also reside in Kathmandu.

### **SAARC- Key facts:**

The South Asian Association for Regional Cooperation (SAARC) is an economic and geopolitical organisation of eight countries that are primarily located in South Asia or the Indian subcontinent.

- The SAARC Secretariat is based in Kathmandu, Nepal.
- The combined economy of SAARC is the third largest in the world in the terms of GDP (PPP) after the United States and China and fifth largest in the terms of nominal GDP.
- SAARC nations comprise 3% of the world's area and contain 21% (around 1.7 billion) of the world's total population and around 9.12% of the global economy as of 2015.
- India makes up over 70% of the area and population among these eight nations.
- The SAARC policies aim to promote welfare economics, collective self-reliance among the countries of South Asia, and to accelerate socio-cultural development in the region.
- The SAARC has also developed external relations by establishing permanent diplomatic relations with the EU, the UN (as an observer), and other multilateral entities.
- The member states are Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.
- States with observer status include Australia, China, the European Union, Iran, Japan, Mauritius, Myanmar, South Korea and the United States.

Sources: the hindu.

## **India gold demand to revive in 2017, says World Gold Council**

The World Gold Council (WGC) expects a revival in demand for the yellow metal in India in the current calendar year after 2016 ended on a dismal note on account of a surge in gold price coupled with factors like an increase in excise duty and demonetisation.

- The global body expects Indian gold demand to be about 650-750 tonnes in 2017. Demand was just a little more than 600 tonnes in the last calendar year.

## **Background:**

The year 2016 saw gold demand in India falling to its lowest level since 2009 as government policies along with weak rural sentiment kept consumers away.

## **Impact of demonetisation:**

While demonetisation did dent economic growth, it was helping large jewellery retailers and consumers in terms of transparency and quality.

Demonetisation is also boosting large jewellery retailers, and they will continue to grab a larger share of the market. Over time, consumers will move away from cash towards digital payments, and organised players should benefit from this trend. This change in market dynamics will result in more transparency and a better deal for consumers, protecting them from shady practices such as under-carating.

## **Impact of cap on cash transactions:**

While the government had put a cap of ₹3 lakh on cash transactions starting April 1, the Council was of the view that while it could hamper gold purchases, consumers might buy the precious metal in smaller quantities or might also look at the black market to bypass the regulations.

## **About World Gold Council:**

The World Gold Council is the market development organisation for the gold industry. It works across all parts of the industry, from gold mining to investment, and their aim is to stimulate and sustain demand for gold.

- The World Gold Council is an association whose members comprise the world's leading gold mining companies.[3] It helps to support its members to mine in a responsible way and developed the Conflict Free Gold Standard.
- Headquartered in the UK, they have offices in India, China, Singapore, Japan and the United States.

Sources: the hindu.

## **Ministry of Railways and United Nations Environment Programme (UNEP) signed Letters of Intent(LOI) on Environment Initiatives**

Ministry of Railways signed a LETTER OF INTENT (LOI) with United Nations Environment Programme (UNEP) to formalise the joint cooperation in the area of environmental conservation.

## **The focussed areas identified for joint activities would be to:**

- Collaborate in Formulating Specific Roadmap for achieving 20% reduction in Water consumption at Railway establishments.
- Collaborate in the development of a Draft action plan for establishing waste management centres at major stations on Indian Railways.
- Collaborate in the development of a Draft action plan for Indian Railways on sustainable public procurement for green technology.

## **About UNEP:**

The United Nations Environment Programme (UNEP) is an agency of United Nations and coordinates its environmental activities, assisting developing countries in implementing environmentally sound policies and practices. It was founded by **Maurice Strong**, its first director, as a result of the **United Nations Conference on the Human Environment (Stockholm Conference)** in June 1972 and has its headquarters in the **Gigiri** neighborhood of **Nairobi, Kenya**.

- UNEP has overall responsibility for environmental problems among United Nations agencies but talks on addressing global warming are overseen by the Bonn-based Secretariat of the United Nations Framework

Convention on Climate Change. Its activities cover a wide range of issues regarding the atmosphere, marine and terrestrial ecosystems, environmental governance and green economy.

- UNEP has also been active in funding and implementing environment related development projects.
- The World Meteorological Organization and UNEP established the Intergovernmental Panel on Climate Change (IPCC) in 1988. UNEP is also one of several Implementing Agencies for the Global Environment Facility (GEF) and the Multilateral Fund for the Implementation of the Montreal Protocol, and it is also a member of the United Nations Development Group.
- The **International Cyanide Management Code**, a program of best practice for the chemical's use at gold mining operations, was developed under UNEP's aegis.

Sources: pib.

## Commonwealth trade meet begins

An inaugural Commonwealth summit focused on stimulating trade within the group has begun in London. It is being attended by government trade representatives and business people.

### Key facts:

The event involves a series of roundtable discussions between ministers from over 30 countries and chief executives, followed by a ministerial roundtable, which its organisers hope will kick start further action on strengthening cross-Commonwealth trade, ahead of next year's Commonwealth Heads of Government summit in the U.K. next year.

The Commonwealth leadership is targeting an increase in intra-Commonwealth trade to \$1 trillion by 2020, from \$750 billion. Organisers of the trade summit are hopeful that a Commonwealth accord that recognises the benefits of trade within the block, and provides the framework for potential trade initiatives between groupings within it is achievable in the next couple of years.

### The commonwealth:

The Commonwealth of Nations, at one time known as British Commonwealth, is an organisation of fifty three states that were principally below the colonial rule of British Government. They came into existence with the proclamation of sovereignty of the state from the colonial rule of British Empire and were later given self-governance.

- It proclaims that the Commonwealth nations are "free and equal." The insignia of this Commonwealth Association is Queen Elizabeth II who is considered the Supreme of the Commonwealth nations.
- The member states of the commonwealth are not legally liable or bound to each other. They are rather united by language, history, culture, likeness of the democracy, human rights and the rule of law.
- Their values are listed down within the Commonwealth Charter and the hands of harmony towards the member states are extended by the Commonwealth Games held every four years.
- Former British mandates that did not become members of the Commonwealth are Egypt, Transjordan, Iraq, British Palestine, Sudan, British Somaliland, Oman, Kuwait, Bahrain, Qatar, and the United Arab Emirates.

### India and the Commonwealth:

India is thought to be particularly well placed when it comes to taking a leading role in driving forward the Commonwealth growth, given that it along with the U.K. is one of the few Commonwealth nations that has established trade relations stretched across the globe, while many other Commonwealth members are regionally focused. In addition to providing opportunities to discuss trade with long-standing partners — including in Africa, where India has the established channel of the India-Africa Summit — Commonwealth summits provide an opportunity for India to converse with the smaller island states.

Sources: the hindu.

## India to lose presence on U.N. scientific panel

India will — for the first time in two decades — not have a member in a prestigious, U.N. scientific body that decides what portions of the seabed can be exclusively mined for natural resources such as oil, precious metals and minerals.

### What's the issue?

India's current member to the 21-person body, called Commission on Legal Continental Shelf (CLCS) and part of the United Nations Convention on the Law of the Sea (UNCLOS). But, this year India has decided not to field a candidate for the upcoming election.

Instead, the Ministry of External Affairs (MEA), which formally nominates Indian candidates, chose to nominate a person to another U.N. body, called the International Tribunal for the Law of the Sea (ITLOS).



### Implications of this move:

The CLCS has a five-year tenure and elections are due in June for the 2017-2022 term. Not having an Indian in this 21-member group would mean that China and Pakistan would likely "grab" two of the five seats allotted to the so-called Asia-Pacific group.

### Why membership of CLCS is important for India?

Apart from signalling prestige, a membership of the commission allows India to gauge the scientific strength of claims by countries to parts of the seabed that, like territorial waters, are often hard to demarcate. Such information is privy only to participants.

India also has huge interest in CLCS and applied for extending the Exclusive Economic Zone (EEZ) up to 350 nautical miles from the existing 200 nautical miles.

### About CLCS:

The purpose of the Commission on the Limits of the Continental Shelf (the Commission or CLCS) is to facilitate the implementation of the United Nations Convention on the Law of the Sea (the Convention) in respect of the establishment of the outer limits of the continental shelf beyond 200 nautical miles (M) from the baselines from which the breadth of the territorial sea is measured.

- Under the Convention, the coastal State shall establish the outer limits of its continental shelf where it extends beyond 200 M on the basis of the recommendation of the Commission.
- The Commission shall make recommendations to coastal States on matters related to the establishment of those limits; its recommendations and actions shall not prejudice matters relating to the delimitation of boundaries between States with opposite or adjacent coasts.

Sources: the hindu.

## Ban lawmakers from practising other professions: plea in SC

A petition has been filed in the Supreme Court seeking to ban legislators from practising other professions, including as advocates.

### **Need for ban:**

Many legislators who double up as advocates are even retainers of big corporate bodies entities, thus giving rise to a situation of conflict of interest between their constitutional duties as a legislator and a lawyer meant to vouchsafe the private interests of their client.

Currently, public servants and judges are barred from engaging in other professions.

### **Way ahead:**

The petitioner argues that corruption cannot be curbed without having a uniform policy relating to conflict of interest and restricting legislators to practice other professions.

Sources: the hindu.

## **ICRISAT, ICAR join hands for crop improvement**

In a bid to benefit small farmers in India and globally, Indian Council of Agricultural Research (ICAR) and the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) would work together on crop improvement and agronomy programmes for grain legumes and dryland cereals.

- In this regard, ICAR and ICRISAT, recently signed an agreement in which climate smart crops, smart food and digitalisation of breeding database were identified as some of the core areas of research.
- Other areas of focus include – integrating systems modelling tools for upscaling climate resilient agriculture, developing genetic and genomic resources of finger millet and enhancing genetic gains for priority traits.

### **About ICRISAT:**

The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) is an international organisation which conducts agricultural research for rural development, headquartered in Patancheru (Hyderabad, Telangana, India) with several regional centers.

- It was founded in 1972 by a consortium of organisations convened by the Ford and the Rockefeller foundations. Its charter was signed by the FAO and the UNDP.
- Since its inception, host country India has granted a special status to ICRISAT as a UN Organization operating in the Indian territory making it eligible for special immunities and tax privileges.

Sources: the hindu.

## **Shri Upendra Tripathy Appointed as Full Time Interim Director General of ISA**

Mr. Upendra Tripathy has been appointed as the Interim Director General (IDG) of the International Solar Alliance (ISA) on a full time basis

### **International Solar Alliance (ISA):**

The International Solar Alliance (ISA) was launched on 30th November, 2015 as a coalition of the solar resource rich countries jointly by Shri. Narendra Modi, Hon'ble Prime Minister of India and Mr. François Hollande, Hon'ble President of France in the presence of Mr. Ban Ki Moon, Secretary General of the United Nations on the first day of the Paris Climate Conference or CoP21.

- ISA's mission and vision is to provide a dedicated platform for cooperation among solar resource rich countries where the global community including bilateral and multilateral organizations, corporates, industry, and stakeholders can make a positive contribution to assist and help achieve the common goals of increasing use of the solar energy in meeting energy needs of prospective ISA member countries in a safe, convenient, affordable, equitable and sustainable manner.

- More than 120 countries are geographically located in the tropics, between the Tropic of Cancer and the Tropic of Capricorn, either fully or partially. These places get ample sunlight throughout the year, making solar energy an easily available resources. The ISA is an effort to ensure that as these countries rapidly ramp up their electricity production, they should predominantly use solar energy and avoid fossil fuels.
- On 25 January 2016, Hon'ble Prime Minister Shri. Narendra Modi, and the Hon'ble French President François Hollande jointly laid the foundation stone of the ISA headquarters and inaugurated the **Interim Secretariat** of the ISA at the National Institute of Solar Energy (NISE) in **Gwalpahari, Gurugram**.

Sources: pib.

## NABARD launches Water Conservation Campaign in 1 lakh villages

The National Bank for Agriculture and Rural Development (NABARD) has decided to launch a major Water Campaign during the current year, covering around one lakh villages in vulnerable/ water stressed areas and more specifically, where the ground water is over-exploited.

### Key facts:

- The campaign would essentially focus on creating awareness among the rural community about the methods of water conservation, preservation and its efficient utilization at various levels using the modern technologies like micro irrigation (more crop per drop), traditional water management practices, adopting improved package of agronomic practices and others.
- In an innovative move, NABARD proposes to identify Village Volunteers (Jal Doots) for a localized and more effective approach. These volunteers will increase awareness about various methods of rain water harvesting, efficient water use, recharging groundwater and integrated farming systems besides facilitating creation of water conservation structures and adoption of water efficient practices/ technologies through convergence with the ongoing schemes of the Govt./ banks.
- Adequate number of Master Trainers in each State will be identified and professionally trained who will be deployed to run the campaign at district/ village level during the campaign period of April to July 2017.

### Nabard:

It is an apex development and specialized bank established on 12 July 1982 by an act by the parliament of India. Its main focus is to uplift rural India by increasing the credit flow for elevation of agriculture & rural non farm sector.

- It was established based on the recommendations of the Committee set up by the Reserve Bank of India (RBI) under the chairmanship of Shri B. sivaraman.
- It replaced the Agricultural Credit Department (ACD) and Rural Planning and Credit Cell (RPCC) of Reserve Bank of India, and Agricultural Refinance and Development Corporation (ARDC).
- It has been accredited with “matters concerning policy, planning and operations in the field of credit for agriculture and other economic activities in rural areas in India”.
- NABARD is active in developing financial inclusion policy and is a member of the Alliance for Financial Inclusion.



# NABARD

### **Important functions:**

It Serves as an apex financing agency for the institutions providing investment and production credit for promoting the various developmental activities in rural areas.

- It takes measures towards institution building for improving absorptive capacity of the credit delivery system, including monitoring, formulation of rehabilitation schemes, restructuring of credit institutions, training of personnel, etc.
- It regulates the cooperative banks and the RRB's, and manages talent acquisition through IBPS CWE.
- NABARD is also known for its 'SHG Bank Linkage Programme' which encourages India's banks to lend to SHGs.

Sources: the hindu.

## **India Signs Financing Agreement with World Bank**

A financing agreement for IDA credit of US\$ 100 for the "**Uttarakhand Health Systems Development Project**" was recently signed with the World Bank

- The objective of the project is to improve access to quality health services, particularly in the hilly districts of the State, and to expand health financial risk protection for residents of the State.

### **The project has two main components:**

- Innovations of engaging the private sector.
- Stewardship and system improvement.

### **Key facts:**

- Out of the total project size of USD 125 million, USD 25 million will be the counterpart contribution of the State Government.
- The planned design of the Project consists of multiple self-contained clusters of clinical services managed by operators on a PPP basis, providing services for free or at nominal charges, backed up by a robust oversight and monitoring mechanism fully integrated with the expanded health insurance program in the State.

### **About IDA:**

The International Development Association (IDA) is the part of the World Bank that helps the world's poorest countries.

**Aim:** Overseen by 173 shareholder nations, IDA aims to reduce poverty by providing loans (called "credits") and grants for programs that boost economic growth, reduce inequalities, and improve people's living conditions.

**How is it different from IBRD?** IDA complements the World Bank's original lending arm—the International Bank for Reconstruction and Development (IBRD). IBRD and IDA share the same staff and headquarters and evaluate projects with the same rigorous standards.

### **Lending:**

- IDA lends money on **concessional terms**. This means that IDA credits have a zero or very low interest charge and repayments are stretched over 25 to 40 years, including a 5- to 10-year grace period. IDA also provides grants to countries at risk of debt distress.
- In addition to concessional loans and grants, IDA provides significant levels of debt relief through the **Heavily Indebted Poor Countries (HIPC)** Initiative and the **Multilateral Debt Relief Initiative (MDRI)**.

Sources: pib.

## U.N. picks former U.S. state governor to run World Food Programme

United Nations chief Antonio Guterres has appointed former South Carolina Governor **David Beasley** to run the Rome-based **World Food Programme (WFP)**. He will replace Etharin Cousin.

### About WFP:

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



- It is a member of the **United Nations Development Group** and part of its Executive Committee.
- Born in 1961, WFP pursues a vision of the world in which every man, woman and child has access at all times to the food needed for an active and healthy life.
- The WFP is governed by an **Executive Board which consists of representatives from member states**.
- The **WFP operations are funded by voluntary donations from world governments, corporations and private donors**.
- WFP food aid is also directed to fight micronutrient deficiencies, reduce child mortality, improve maternal health, and combat disease, including HIV and AIDS.

Sources: the hindu.

## Govt., NDB ink \$350 mn. loan pact

India has signed its first loan agreement with the New Development Bank (NDB) for \$350 million to be used in the development and upgradation of **district roads in Madhya Pradesh**.

- The objective of the project is the **upgradation of major district roads in the state of Madhya Pradesh** to improve connectivity of the interior areas of the state with the national and state highway networks.
- The project would include upgradation, rehabilitation or reconstruction of approximately 1,500 km of district roads to intermediate lane, all-weather standards, with road safety features and improved road asset maintenance and management.

### Background:

The project is to be implemented over five years with the Government of Madhya Pradesh and the Madhya Pradesh Road Development Corporation acting as the implementing agencies.

### About NDB:

It is a **multilateral development bank operated by the BRICS states** (Brazil, Russia, India, China and South Africa). It is seen as an alternative to the existing US-dominated World Bank and International Monetary Fund.

- The New Development Bank was agreed to by BRICS leaders at the **5th BRICS summit held in Durban, South Africa in 2013**.
- The bank is set up to **foster greater financial and development cooperation among the five emerging markets**.
- The bank will be **headquartered in Shanghai, China**.

### NEW DEVELOPMENT BANK (NDB)



- Earlier known as BRICS DEVELOPMENT BANK
- BRICS together comprise of 2.8 bn people (40% of world population).
- BRICS nations accounts for more than 25% of world GDP
- Unlike the World Bank, which assigns votes based on capital share, in the New Development Bank each participant country will be assigned one vote, and no countries will have veto power
- NDB to be headquartered in Shanghai
- The first president will be from India, the inaugural Chairman of the Board of directors will come from Brazil and the inaugural chairman of the Board of Governors will be Russian

- **Voting:** Unlike the World Bank, which assigns votes based on capital share, in the New Development Bank each participant country will be **assigned one vote**, and **none of the countries will have veto power**.

### What it does?

The [New Development Bank](#) will **mobilise resources for infrastructure and sustainable development projects in BRICS and other emerging economies and developing countries**, to supplement existing efforts of multilateral and regional financial institutions for global growth and development.

Sources: the hindu.





## **INSIGHTS TEST SERIES FOR UPSC PRELIMINARY EXAM 2017 (GS PAPER-1)**

### **HIGHLIGHTS**

- NCERT and other Standard Books based highly conceptual Tests for General Studies Paper - 1
- Emphasis on **Self Study** by providing practical Timetable for whole year that can be followed on a regular basis
- 32 Full Length Tests Each with 100 High Quality Questions
- Focus on enabling you to get 130+ score in Paper - 1
- Analysis of your Performance in different categories after Each Test
- All India Ranking of Individual and Cumulative Tests
- Duration of test series is for one year. Date of your ranking and performance in tests will be removed before the beginning of 2018 Test Series.
- Revision Tests to allow time for regular revision

### **ADVANTAGES**

- High quality 32 Full Length Tests widely acclaimed for their quality questions and right approach to preparing for UPSC civil services Preliminary exam (General Studies Paper -1)
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- Insights has a following of very serious aspirants who are highly motivated and motivate you to be consistent all through the journey.
- Students who subscribed our test series last year have done exceptionally well in Prelims - 2015 and 2016. If you solve all our tests, be sure of clearing Prelims hurdle.

**SUBSCRIBE**

Paper 3 Topic: Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

### Central Board of Direct Taxes (CBDT) signs ten (10) more Advance Pricing Agreements (APAs)

The Central Board of Direct Taxes (CBDT) has entered into 10 more Advance Pricing Agreements (APAs), including 7 Unilateral APAs. Two of these ten agreements are Bilateral APAs with the United Kingdom and Japan. Seven of these Agreements have Rollback provisions in them.

- With this, the total number of APAs entered into by the CBDT has reached 140. This includes 10 Bilateral APAs and 130 Unilateral APAs. In the current financial year, a total of 76 APAs (7 Bilateral APAs and 61 Unilateral APAs) have already been entered into. The CBDT expects more APAs to be concluded and signed before the end of the current fiscal.

#### About APAs:

The APA Scheme was introduced in the Income-tax Act in 2012 and the “Rollback” provisions were introduced in 2014. The scheme endeavours to provide certainty to taxpayers in the domain of transfer pricing by specifying the methods of pricing and setting the prices of international transactions in advance. Since its inception, the APA scheme has evinced a lot of interest from taxpayers and that has resulted in more than 700 applications (both unilateral and bilateral) being filed so far in about five years.

The progress of the APA Scheme strengthens the Government’s resolve of fostering a non-adversarial tax regime. The Indian APA programme has been appreciated nationally and internationally for being able to address complex transfer pricing issues in a fair and transparent manner.

Sources: pib.

### CGST Bill and IGST Bill approved

The Goods and Services Tax (GST) Council has approved the draft CGST Bill and the draft IGST Bill as vetted by the Union Law Ministry. This clears the deck for the Central Government to take these two Bills to the Parliament for their passage in the ongoing Budget Session.

#### Main features of the two Bills, as finalized by the GST Council, are as follows:

- A State-wise single registration for a taxpayer for filing returns, paying taxes, and to fulfil other compliance requirements. Most of the compliance requirements would be fulfilled online, thus leaving very little room for physical interface between the taxpayer and the tax official.
- A taxpayer has to file one single return state-wise to report all his supplies, whether made within or outside the State or exported out of the country and pay the applicable taxes on them. Such taxes can be Central Goods and Services Tax (CGST), State Goods and Services Tax (SGST), Union Territory Goods and Services Tax (UTGST) and Integrated Goods and Services Tax (IGST).
- A business entity with an annual turnover of upto Rs. 20 lakhs would not be required to take registration in the GST regime, unless he voluntarily chooses to do so to be a part of the input tax credit (ITC) chain. The annual turnover threshold in the Special Category States (as enumerated in Article 279A of the Constitution such as Arunachal Pradesh, Sikkim, Uttarakhand, Himachal Pradesh, Assam and the other States of the North-East) for not taking registration is Rs. 10 lakhs.
- A business entity with turnover upto Rs. 50 lakhs can avail the benefit of a composition scheme under which it has to pay a much lower rate of tax and has to fulfil very minimal compliance requirements. The Composition Scheme is available for all traders, select manufacturing sectors and for restaurants in the services sector.

- In the Services sector, the existing mechanism of Input Service Distributor (ISD) under the Service Tax law has been retained to allow the flow of ITC in respect of input services within a legal entity.
- To prevent lock-in of capital of exporters, a provision has been made to refund, within seven days of filing the application for refund by an exporter, ninety percent of the claimed amount on a provisional basis.
- In order to ensure a single administrative interface for taxpayers, a provision has been made to authorise officers of the tax administrations of the Centre and the States to exercise the powers conferred under all Acts.
- An agriculturist, to the extent of supply of produce out of cultivation of land, would not be liable to take registration in the GST regime.
- To provide certainty in tax matters, a provision has been made for an Advance Ruling Authority.
- Exhaustive provisions for Appellate mechanism have been made.
- An anti-profiteering provision has been incorporated to ensure that the reduction of tax incidence is passed on to the consumers.
- In order to mitigate any financial hardship being suffered by a taxpayer, Commissioner has been empowered to allow payment of taxes in instalments.

#### **Background:**

CGST and IGST are part of GST, Goods and Service Tax. Different indirect taxes of Central Excise Duty, Central Sales Tax CST, Service Tax, Additional excise duties, excise duty levied under the medical and toiletries preparation Act, CVD (Additional Customs duty – Countervailing Duty), SAD (Special Additional Duty of customs) surcharges and cesses are merged with CGST. Under IGST, the taxes for movement of goods and services from one state to another are collected. Major share of tax revenue under CGST is meant for central government whereas IGST tax revenue is shared between State government and Central government as per the rate fixed by the authorities.

Sources: pib.

### **NIIF in talks with two sovereign funds**

The National Investment and Infrastructure Fund (NIIF) has begun talks with two sovereign wealth funds to become the first investors to come on board, following the recent signing of a government commitment to infuse ₹20,000 crore into the fund.

- The NIIF plans to leverage the Centre's financing – equivalent to \$3 billion – to invest a far higher amount in infrastructure firms and projects, in partnership with global, long-term investors eyeing infrastructure assets, and fund managers that could create dedicated infra sector funds.

#### **About NIIF:**

The National Investment and Infrastructure Fund (NIIF) was proposed in Union Budget 2015. In the last week of December, the government has set up this Rs. 40000 crore fund to provide long term capital for infrastructure projects.

- The objective of NIIF is to maximise economic impact through infrastructure development in viable projects both greenfield and brownfield, including stalled projects, mainly in the core infra sector.
- NIIF has been structured as a fund of funds and set up as Category II Alternate Investment Fund (AIF) under the Securities and Exchange Board of India (SEBI) Regulations.

Sources: the hindu.

### **Downloading apps may cost money with 'Google tax': Report**

After the application of equalisation levy on online advertisements, the government is mulling over the option of widening its scope.

- The government might impose a six per cent tax levy on all online multinational companies that earn revenue from India, this could include even the downloading of apps on smartphones.

### **Background:**

India became the first country to impose equalisation levy, popularly being called Google Tax which had impacted Indian businesses who use online platforms of foreign digital companies like Google, Amazon, Facebook, etc to advertise their products.

- The Government decided to impose a 6% levy on any payments made by Indian businesses for advertising in websites of foreign companies that are not permanent establishments.
- The equalisation levy was a part of the government's move to tax companies like Google, who were making significant earnings from India but were not paying the income tax. The reason being that these companies do not fulfil the criteria of a permanent establishment, commonly defined as a 'fixed place of business' in a tax territory.

### **About Google Tax:**

The finance ministry had notified that the equalisation levy (popularly known as Google tax) introduced in budget. It came into force on June 1, 2016. As of now, it will apply to payments for online advertisements made by Indian business entities to non-residents (such as Google, Yahoo, Twitter, Facebook) where the aggregate payment in a financial year to a non-resident exceeds Rs 1 lakh. Only B2B transactions attract this levy.

Sources: the hindu.

## **Funds to Swachh Bharat Kosh (SBK)**

Rural Electric Corporation (REC) Limited has contributed Rs. 25 crores towards SBK as part of REC's Corporate Social Responsibility (CSR).

- REC has also contributed Rs. 25 Crore towards this noble cause earlier in August 2016, thus making a total contribution of Rs. 50 Crore to the Kosh.

### **About SBK:**

The SBK was set up to attract CSR funds from corporate sector and contribution from individual philanthropists to achieve the objective of Clean India (Swachh Bharat) through "Swachh Bharat Abhiyan" by the year 2019, the 150th year of birth anniversary of Mahatma Gandhi.

The SBK is to be used to achieve the objective of improving cleanliness levels in rural and urban areas, including in schools. The allocation from the SBK is being used to supplement departmental resources for such activities. All donations towards Swachh Bharat Kosh are eligible for deduction of 100% from the total Income Tax. The contributions to SBK can also be included by companies towards CSR under the Companies Act, 2013.

### **About REC:**

Rural Electric Corporation (REC) Limited is an enterprise of the Government of India under the Ministry of Power, mandated to provide financing for the power sector development across the value chain in the field of generation, transmission, distribution and above all, renewable energy development. REC is the coordinating agency for implementing flagship programs of the government in power sector that include Deendayal Upadhyaya Gram Jyoti Yojana scheme, the Ujal DISCOM Assurance Yojana (UDAY) programme and several other initiatives of the government to ensure "Power for All".

Sources: Pib.

## **Projects approved for Swift Implementation of Namami Gange Programme in Uttarakhand, Bihar, Jharkhand and Delhi**

Picking up pace, projects worth nearly Rs 1,900 crore have been approved by the Executive Committee (EC) of National Mission for Clean Ganga.

- Out of 20 projects approved, 13 are in Uttarakhand that includes creating new sewage treatment plants, upgrading existing STPs and laying of sewage networks in Haridwar at an estimated cost of approximately Rs 415 crore.
- Among other projects approved in Uttarakhand are four pertaining to pollution abatement works for river Alakananda to ensure cleaner flow of the river downstream. This includes interception and diversion of drains along with creation of new small STPs at four crucial locations – Joshimath, Rudraprayag, Karnprayag and Kirti Nagar at an estimated cost of nearly Rs 78 crore.
- All these projects will be fully funded by the Central Government, including even the expenditure on operation and maintenance of these projects.

### **About National Mission for Clean Ganga:**

National Mission for Clean Ganga (NMCG) was registered as a society on 12th August 2011 under the Societies Registration Act 1860. It acted as implementation arm of National Ganga River Basin Authority (NGRBA) which was constituted under the provisions of the Environment (Protection) Act (EPA), 1986. NGRBA has since been dissolved with effect from the 7th October 2016, consequent to constitution of National Council for Rejuvenation, Protection and Management of River Ganga (referred as National Ganga Council).

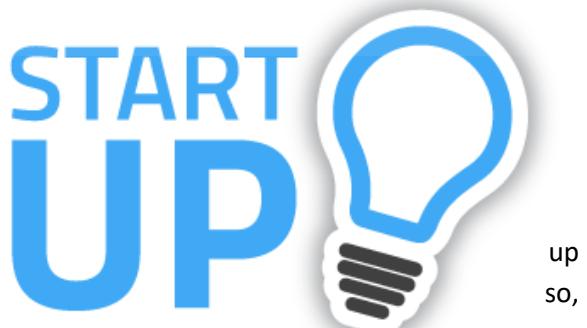
- It now works under the control of Ministry of Water Resources, River Development and Ganga Rejuvenation. The aim is to clean Ganga and its tributaries in a comprehensive manner.
- NMCG has a two tier management structure and comprises of Governing Council and Executive Committee. Both of them are headed by Director General, NMCG. Executive Committee has been authorized to accord approval for all projects up to Rs.1000 crore. Similar to structure at national level, State Programme Management Groups (SPMGs) acts as implementing arm of State Ganga Committees.
- The Director General (DG) of NMCG is a Additional Secretary in Government of India. For effective implementation of the projects under the overall supervision of NMCG, the State Level Program Management Groups (SPMGs) are, also headed by senior officers of the concerned States.

Sources: Pib.

## **Cabinet approves of proposal to establish a Fund of Fund for Start-ups (FFS)**

The Union Cabinet has approved the following proposals with regard to the Fund of Funds of Start-ups (FFS) which was established in June, last year with a corpus of Rs. 1,000 crores.

- Alternate Investment Funds (AIFs) supported by FFS shall invest at least twice the amount of contribution received from FFS in Start-ups. Further, if the amount committed for a Start-up has not been released before a Start-up ceases to be the balance funding can continue thereafter.
- It was also decided that operating expenses for carrying out due diligence, legal and technical appraisal, convening meeting of Venture Capital Investment Committee, etc. would be met out of the FFS to the



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extent of 0.50% of the commitments made to AIFs and outstanding. This will be debited to the fund at the beginning of each half year; i.e. April 1 and October 1.

#### About FFS:

The Union Cabinet in 2016 had approved the proposal to establish a Fund of Funds for Start-ups (FFS) with a total corpus of Rs.10000 crore, with contribution spread over the 14th & 15th Finance Commission cycles based on progress of implementation and availability of funds. It was decided that the FFS shall contribute to the corpus of Alternative Investment Funds (AIFs) for investing in equity and equity linked instruments of various start-ups at early stage, seed stage and growth stages.

- The FFS is being managed and operated by Small Industries Development Bank of India (SIDBI). FFS contributes to SEBI registered Alternative Investment Funds (AIFs) that may go up to a maximum of 35% of the corpus of the AIF concerned.
- The Cabinet has decided that the corpus of Fund of Funds along with counterpart funds raised by the AIFs in which FFS takes equity would be invested entirely in Start-ups.

Sources: pib.

### Jobs impact of 'Make In India' under review

The Centre is working on a 'compliance report' of its flagship 'Make In India' (MII) initiative that attempts to transform India into a global design and manufacturing hub as well as generate large-scale employment.

- The objective of the exercise, among other things, is to find out whether the government departments and agencies implementing the MII programme are meeting the deadlines envisaged in the 'MII Action Plan' of December 2014.

#### Background:

The MII initiative covers 25 focus sectors ranging from automobiles to wellness. At a national workshop held in December 2014 on these 25 sectors, an Action Plan was finalised with the help of Secretaries to the Indian Government as well as industry leaders. The 'MII Action Plan' had set short-term (one year) and medium-term (three years) targets "to boost investments in the 25 sectors" and to "raise the contribution of the manufacturing sector to 25% of the GDP by 2020."



#### Need for assessment:

Recently, the Parliamentary Standing Committee on Commerce wanted an assessment to be done on how the MII initiative has helped the country's micro, small and medium enterprises.

- It recommended that dedicated steps should be taken to ensure that FDI promotes the MSME sector, and sought to know the factors behind the Foreign Portfolio Investments turning negative and its impact on the Indian industry.
- The panel also wanted to learn if the MII initiative has seized the opportunity of demographic dividend in the country.

#### Manufacturing potential of India:

As per the National Manufacturing Policy, "the share of manufacturing in India's GDP has stagnated at 15%-16% since 1980 while the share of comparable economies in Asia is much higher at 25%-34%."

According to the India Brand Equity Foundation (IBEF), "India's manufacturing sector has the potential to touch \$1 trillion by 2025. There is potential for the sector to account for 25-30% of the country's GDP and create up to 90 million domestic jobs by 2025."

#### Way ahead:

Manufacturing growth in the country has to become robust. However, the manufacturing sector has grown only by an average of 1.6% in the last five years till 2015-16. Appropriate measures should be taken to revive the growth.

Sources: the hindu.

## Centre seeks banks' turnaround plans

The Finance Ministry has written to 10 public sector banks making it clear that the lenders would only get further capital infusion once they submit a [time-bound turnaround plan](#).

#### Background:

The government's move to crack the whip on lenders comes after some banks reported losses in financial year 2015-16 as well as for the nine-month period of the current financial year. Bad loans zoomed following the Reserve Bank of India's asset quality review, which required banks to classify many accounts identified by the banking regulator as 'bad'.



In its financial stability report, RBI had said banks may remain risk averse in the near future as they clean up their balance sheets and their capital position may remain insufficient to support higher credit growth. According to RBI data, gross non-performing assets of commercial banks increased to 9.1% of their gross advances as of September 2016, from 5.1% a year earlier. Public sector banks share a disproportionate burden of this stress.

#### Way ahead:

The Centre, which has mandated State Bank of India's merchant banking arm SBI Caps to vet each bank's plan, had recently written to the state-owned lenders stipulating that they would each have to sign a Memorandum of Understanding (MoU) with the government, agreeing to stick to the turnaround plan. Now, the government wants 10 public sector banks to turn around in the next three years.

#### Mission Indradhanush:

In 2015, under the Indradhanush plan, the government had announced **capital infusion** of ₹70,000 crore in **public sector banks** for four years, starting from 2015-16. In the first two financial years, ₹25,000 crore had been earmarked per year with ₹10,000 crore to be disbursed in each of the remaining two years. However, credit rating agencies had pointed out that the sum was insufficient as banks needed to meet Basel-III norms as well as make provisions for rising bad loans.

Sources: the hindu, business standard

## By 2021, 4 out of 10 jobs would be lost to automation

**Automation is the new normal** in sectors like engineering, manufacturing, automobiles, IT and banking. As **automation adoption increases**, all **high transaction and labour intensive jobs will take a hit**. Experts say, this will affect the bottom of the pyramid so much so that four out of every 10 jobs globally would be lost due to this by 2021.

#### Concerns:

- There will be a visible change in the next 3-4 years, first major effects will be seen in the sectors like manufacturing, IT and ITeS and security services and agriculture.

- By 2021, **four out of every 10 jobs globally would be lost because of automation**. And of these, **one in every four will be from India**. That sums up to **23% of job loss in India**.
- India produces 5.5 million jobs (across levels) every year, but this number falls short of jobs needed to employ available talent and automation is further increasing the gap.
- **Low skill and high transaction jobs will be affected** as automation takes away their jobs. Hiring for short term projects, flexi hiring would be the way forward in these areas for roles that cannot be automated.

#### **Way ahead:**

**Automation will not take away all the jobs because you still need someone to build and monitor the robots.** So, while jobs mostly at the bottom of pyramid will be affected, new jobs will get added.

However, to cater to this fallout, government needs to **focus on two key areas**:

- Strengthening the mid-market segment.
- Reskilling the workforce to take up new jobs which will emerge post automation.

Sources: the hindu.

#### *Paper 3 Topic: Government Budgeting.*

### **FM releases the Revised General Financial Rules (GFR) 2017**

The Finance Minister Shri Arun Jaitley recently released the Revised **General Financial Rules (GFRs) – 2017**.

- The Revised GFR -2017 aims to provide a framework within which an organization manages its business in a financially prudent manner without compromising its flexibility to deal with varied situations.
- The new GFRs 2017 will enable an improved, efficient and effective framework of fiscal management while providing the necessary flexibility to facilitate timely delivery of services.

#### **What are GFRs?**

The GFRs are rules and orders dealing with matters involving **public finances**. General Financial Rules were issued for the first time in 1947 bringing together in one place all existing orders and instructions pertaining to financial matters. These have subsequently been modified and issued as GFRs 1963 and GFRs 2005.

Sources: pib.

#### *Paper 3 Topic: Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.*

### **'Help speed up resolution of commercial disputes'**

The Central government has urged the Supreme Court to provide the necessary leadership for expeditious and effective resolution of commercial disputes in Delhi and Mumbai lower courts, through e-filing and e-service of summons and adherence to time lines.

#### **What needs to be done?**

The Supreme Court could provide the necessary leadership for the proper implementation of the existing provisions of the Civil Procedure Code relating to the grant of adjournments, adherence to time lines and electronic filing and electronic service of summons in city courts of Delhi (11) and Mumbai (60) immediately.

Doing so will go a long way in providing timely and effective enforcement of contracts and this will undoubtedly ensure a marked improvement in our ranking.

## **Background:**

The government has accorded high priority to improving the ease of doing business and making India a favourable investment destination for the domestic as well as global investors. Efficient and effective delivery of justice play a key role.

## **Ease of doing business in India:**

The World Bank publishes a report on “Doing Business” on annual basis, which compares the business regulations across 190 economies. As per the report published by the World Bank in September 2016, India’s overall ranking improved from 131 in 2016 to 130 in 2017. The overall ranking is an average of the various sub-indicators on the basis of which the countries have been ranked. These sub-indicators include the time taken to start a business, time taken to get construction permits, paying taxes and enforcing contracts.

The “**Enforcing Contract**” indicator in the report measures the time and cost for resolving a standardised commercial dispute through a local court of first instance, which for the purpose of the ranking is the Delhi district court and Mumbai city civil court as of now.

Sources: the hindu.

## **Paper 3 Topic: Inclusive growth and issues arising from it.**

### **Start-up firms may soon find it easy to wind up**

To enable faster exit for start-ups and to bring the winding up process in line with global best practices, the Department of Industrial Policy and Promotion (DIPP) has written to the Ministry of Corporate Affairs (MCA) to notify start-ups as ‘Fast Track firms.’ Fast Track firms will be start-ups with simple debt structures or those meeting certain criteria that will be specified.

Once this is notified, start-ups shall be able to wind up their business within a period of 90 days from making an application for the same.

## **Background:**

The DIPP is the nodal Central government body for the Start-up India initiative, while the MCA is the concerned authority for notifications on winding up of companies. This reform was part of recommendations made by the ‘Bharat Navodaya: Start-Up India Reform Report’. The Report was prepared by the Infosys founder N.R. Narayana Murthy-chaired Alternative Investment Policy Advisory Committee (AIPAC) following a request from capital markets regulator SEBI.

## **Significance of this move:**

Winding up in the U.K. can be initiated by downloading a simple form and calling for a shareholders meeting. In Singapore, a simple online application is needed to be made by a director or Company Secretary following which, the process is quite straightforward. Most economic zones in UAE allow for winding down of the business in two to three days.

However, the procedure for winding up is complex in India: Several parties including start-ups and venture capital investors have expressed concerns that the process of winding up a company is extremely long and cumbersome, adding to the risk of starting up and operating an enterprise as well as wastage of invaluable human capital.

Also, the long process, paper work and costs involved in the closure are the main reasons why several companies remain dormant. In some instances, entrepreneurs may continue to run companies on paper, filing tax returns and preparing annual reports every year, even if it is no longer operational.

Sources: the hindu.

## SBI-Mahila bank merger okayed

The three-year-old **Bharatiya Mahila Bank** will be merged with the **State Bank of India (SBI)** to expedite the outreach of banking services to women. The SBI is already in the process of amalgamating its five associate banks.

### About Bharatiya Mahila Bank:

Bharatiya Mahila Bank (BMB) is an Indian financial services banking company based in Mumbai, India. It was launched in 2013 on the occasion of the 96th birth anniversary of former Indian Prime Minister Indira Gandhi.

- India is the third country in the world to have a bank especially for women, after Pakistan and Tanzania.
- In the last three years since BMB was established, it has extended loans of Rs 192 crores to women borrowers.

Sources: the hindu.

**Paper 3 Topic: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.**

## First Integrated Heliport of the Nation

The First Integrated Heliport was recently dedicated to the Nation by Ministry of Civil Aviation in association with Pawan Hans at Rohini Heliport, Delhi.

### Background:

The heliport is an excellent infrastructure but helicopter services in India are still at a nascent stage. National Aviation Policy proposes to have four heliports, one in each region and Rohini's heliport is the first step.

### Key facts:

- The Rohini heliport has been completed in almost two years at a cost of nearly 100 crores. This Heliport will provide all helicopter operational facilities and will decongest busy Indira Gandhi International Airport, and also promote Regional Air connectivity through helicopters in the northern part of the country for regular passenger services, heli services, landing & parking of helicopters, Helicopters Maintenance Services (MRO), disaster management, helicopter emergency medical services (HeMS), law & order surveillance.
- The Heliport consists of a terminal building having capacity of 150 passengers, 4 hangers with parking capacities for 16 helicopters and 9 parking bays.
- Pawan Hans has also prepared a roadmap to connect all the major destination from this Heliport such as Ex-Delhi to Shimla, Haridwar, Dehradun Mathura, Agra, Meerut and Industrial Hubs such as Manesar, Bahadurgarh etc. They will provide air connectivity between Delhi and neighbouring cities from Rohini Heliport.

### Way ahead:

PHL is planning to develop four "heli-hubs" in line with the concept lines of the "Airport-Hubs" and Rohini is the First step into this series. These heli-hubs will be a one-point solution for the helicopter business and will act as a heliport for public passenger services, MRO facility for helicopter maintenance and also as a skill development centre for training of pilots, AMEs and technicians.

Sources: pib.

## Tezu is now a vantage point

The newly constructed Tezu airport will be the first civilian airport of Arunachal Pradesh. Tezu will smoothen transport to several high-altitude districts near the India-China border. Tezu is the nearest town to Walong, where a legendary battle between Indian and Chinese soldiers took place in October 1962.

### Significance of this new move:

The route to Tezu is critical from a strategic point of view as the Himalayan range, which became famous as 'the hump' during World War II, can be accessed only through the mountain roads that begin at Tezu.

## **Background:**

The ancient inhabitant of this land of valley and rivers are the Mishmi tribes. The Mishmi tribes have traditions and customs dating back to the times of Mahabharata. According to Hindu traditions, Lord Krishna's first queen Rukmini was a Mishmi Damsel.

- The major Mishmi God is Ringyajabmalu and the major Mishmi festival is known as Tamladu puja. It is celebrated each year on 15 February. People from all communities and all walks of life are invited to join in the celebrations.
- The Holy Parshuram Kund is also nearby and thousands of Hindu pilgrims from all over India, and also from neighbouring countries, come to take a holy dip and wash away the sins of millions of births. This is accompanied with a fair at Tezu and takes place every year during the month of January.

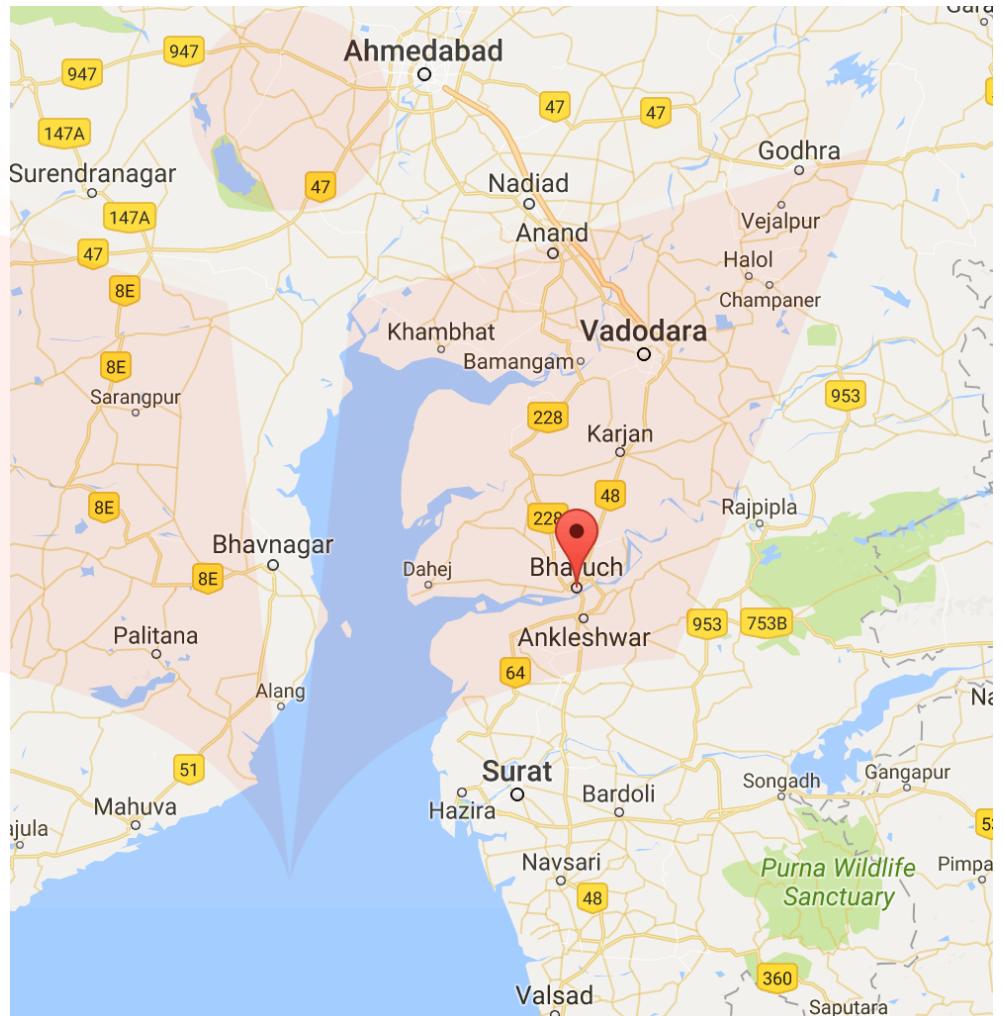
Sources: the hindu.

## **Bridge across River Narmada at Bharuch inaugurated**

In a major relief for people travelling on the Vadodara- Surat section of NH-8 (New NH-48), a new four lane, Extradosed Bridge across river Narmada at Bharuch was recently dedicated to the nation.

### **Key facts:**

- The 1.4 km 'Extradosed' cable stayed bridge is the longest in India and the second such bridge in the country after Nivedita Setu over Hooghly.
- The bridge is 20.8 metres wide, with 14.5 metre carriageway and 3 metre footpath. It is supported on 9 Pylons of 36 meter height on pile foundation of 1.5 metre diameter. The bridge will be lit by more than 400 LED lights.
- The bridge is part of National Highways Authority of India's project for six laning of Ahmedabad-Mumbai section of NH-8 (Total length of 6.745 Km between km.192.00 to km.198.745.) in Baruch district of the state of Gujarat.
- This section of NH 8 will have State of the Art Highway Traffic Management System (HTMS), Variable Message Sign Boards, Median Plantation, Traffic Aid Post, Medical Aid Post, RFID and Smart Card Swapping enabled infrastructure at the Toll Plaza and Theme Lighting on the main bridge.



Sources: pib.

## Cabinet approves Revised Cost Estimate-I of Koteswar Hydro Electric Project in Uttarakhand

The Cabinet Committee on Economic Affairs has approved the Revised Cost Estimate-I of 400 MW Koteswar Hydro Electric Project (HEP) in Uttarakhand at an estimated completion cost of Rs.2,717.35 crore.

- The project is being implemented by Tehri Hydro Development Corporation (THDC) India Limited.
- In addition to additional generating capacity of 400 MW of peaking power it will regulate releases from Tehri Reservoir for irrigation and drinking water supply.

### Background:

The Project has already been commissioned fully in March, 2012. Only balance works are to be done which are not linked with operation of the Plant but essential for safety and completion of the project.

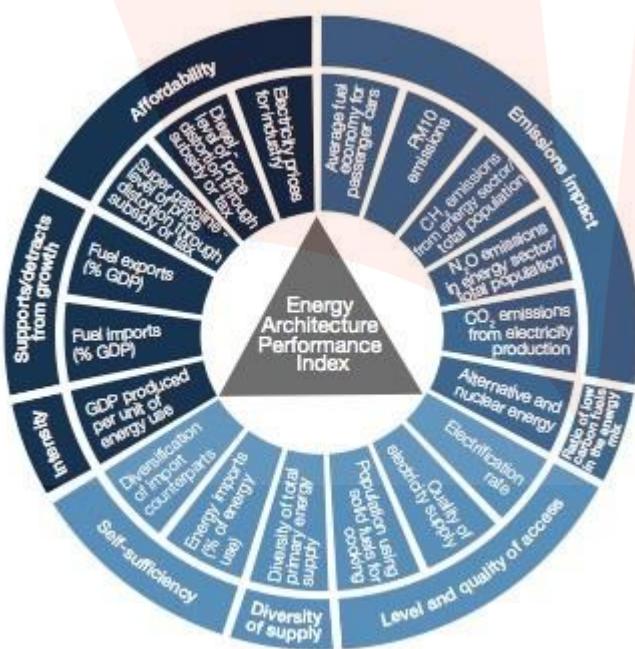
### About the project:

Koteswar Hydro-Electric Project (400 MW), located 22 km downstream of Tehri, is an integral part of Tehri Power Complex comprising of Tehri Dam & HPP (1000 MW), Tehri PSP (1000MW) and Koteswar HEP (400MW) to develop Hydro-electric potential of river Bhagirathi. It will facilitate the functioning of Tehri Power Complex as a major peaking station in Northern grid as reservoir created by Koteswar Dam having a live storage capacity of 35.0 MCM will function as lower (balancing) reservoir for Tehri PSP. This project is also regulating water releases from Tehri reservoir for irrigation purpose.

Sources: pib.

## India ranks 87th on energy architecture performance: World Economic Forum

Global energy architecture performance index was recently released by Geneva-based **World Economic Forum (WEF)**.



This sub-index measures the extent to which a country's energy architecture adds or detracts from economic growth

#### Environmental sustainability

This sub-index measures the environmental impact of energy supply and consumption

#### Energy access and security

This sub-index measures the extent to which an energy supply is secure, accessible and diversified

Global Energy Architecture Performance Index Report 2015

### About the report:

The report, developed in collaboration with Accenture Strategy, ranked 127 countries based on their ability to provide energy across three dimensions of the 'energy triangle'.

- Being compiled since 2013, the Energy Architecture Performance Index (EAPI) is a composite index that focuses on tracking specific indicators to measure the energy system performance of 127 countries.
- It has 18 indicators defined across the three sides of the ‘energy triangle’ — economic growth and development, environmental sustainability, and energy access and security.

### **Performance of India:**

- India has marginally improved its position to 87th place this year. India’s rank improved three places from 90th last year. India ranks among the worst in the world for pollution.
- India is gradually improving its performance on the index, but faces an uphill battle to increase energy access and security (95th).
- A large percentage of the population still lacks access to electricity (101st) and uses solid fuels for cooking (108th).
- India, just like China, boasts of a strong score on the indicator for diversification of import counterparts (5th), but its energy system continues to face some significant challenges, particularly in environmental sustainability (109th).
- India has some of the lowest scores in the EAPI for CO2 emissions from electricity production and PM2.5 levels (117th and 123rd, respectively).
- While sources of pollution are diverse and intermittent (such as agricultural crop burning, refuse combustion, fireworks), the energy sector is a large, consistent contributor to this issue of major concern.
- Many solutions have been attempted with varying degrees of impact, but the country sorely needs a comprehensive plan of action to implement an effective and sustainable answer.

### **Global scenario:**

- Switzerland topped the annual list and was followed by Norway, Sweden, Denmark and France in the top five.
- According to the findings, the world’s biggest energy consumers struggle to take leading positions on the index as they grapple with inherent challenges of their large, complex energy systems and are outperformed by more nimble economies.
- Overall, some of the largest consumers of energy such as China (95th), India, Japan (45th), the Russian Federation (48th) and the United States (52nd) have either slipped in the rankings or experienced only marginal gains.

Sources: the hindu.

## **India becomes Net Exporter of Electricity for the first Time**

As per Central Electricity Authority, the Designated Authority of Government of India for Cross Border Trade of Electricity, **1st time India has turned around from a net importer of electricity to Net Exporter of electricity.**

- During the current year 2016-17 (April to February 2017), **India has exported around 5,798 Million Units to Nepal, Bangladesh and Myanmar** which is 213 Million units more than the **import of around 5,585 Million units from Bhutan**. Export to Nepal and Bangladesh increased 2.5 and 2.8 times respectively in last three years.



### **Import of power:**

Ever since the cross border trade of electricity started in mid-Eighties, India has been importing power from Bhutan and marginally exporting to Nepal in radial mode at 33 kV and 132 kV from Bihar and Uttar Pradesh. On an average Bhutan has been supplying around 5,000- 5500 Million units to India.

### **Export of power:**

- India has been exporting around 190 MW power to Nepal over 12 cross border interconnections at 11kV, 33kV and 132 kV level. The export of power to Nepal further increased by around 145 MW with commissioning of Muzaffarpur (India)– Dhalkhebar(Nepal) 400kV line (being operated at 132 kV) in 2016.
- Export of power to Bangladesh from India got further boost with commissioning of 1st cross border Interconnection between Baharampur in India and Bheramara in Bangladesh at 400kV in September 2013. It was further augmented by commissioning of 2nd cross border Interconnection between Surjyamaninagar (Tripura) in India and South Comilla in Bangladesh. At present around 600 MW power is being exported to Bangladesh.
- Export of power to Nepal is expected to increase by around 145 MW shortly over 132 kV Katiya (Bihar)– Kusaha (Nepal) and 132 kV Raxaul (Bihar)– Parwanipur (Nepal).

### **About Central Electricity Authority:**

The Central Electricity Authority of India (CEA) is a **statutory organisation** constituted under section 3(1) of **Electricity Supply Act 1948**, which has been superseded by section 70(1) of the **Electricity Act 2003**. The CEA advises the government on matters relating to the National Electricity Policy and formulates short-term and perspective plans for the development of electricity systems.

- Under the Electricity Act 2003, CEA prescribes the standards on matters such as construction of electrical plants, electric lines and connectivity to the grid, installation and operation of meters and safety and grid standards.
- The CEA is also **responsible for concurrence of hydro power development schemes of central, state and private sectors** taking into consideration the factors which will result in efficient development of the river and its tributaries for power generation, consistent with the requirement of drinking water, irrigation, navigation and flood control.

Sources: the hindu.

## **Centre picks five airlines to connect 43 regional airports**

The Centre has announced a list of routes awarded to five airlines which will operate flights under its regional connectivity scheme, named **UDAN** (Ude Desh ka Aam Naagrik).

### **Key facts:**

- Low-cost airline SpiceJet, Air India subsidiary Alliance Air along with regional airlines Turbo Megha Airways, Air Deccan and Air Odisha Aviation won the rights to operate flights under the **regional connectivity scheme under which half of the seats on the plane will be capped at ₹2,500 per hour's flight**.
- Some of the inactive airports that will soon witness regional flights include Shimla, Agra, Bikaner, Gwalior, Kadapa, Rourkela, Jharsuguda, Vidyanagar, Burnpur, Diu, Shillong, Kullu, Mysore, Jagdalpur, Salem, Utkela, and Hosur.
- The regional airlines will connect these destinations with their nearest bigger airports such as Delhi, Bengaluru, Chennai, Bhubaneswar, Mumbai, Ahmedabad, and Jaipur, among others.



## **Significance of this move:**

With this, the passengers will be able to fly on as many as 128 routes connecting 70 big and small airports across the country by paying ₹2,500 for an hour's flight.

## **Subsidy on losses:**

As per the scheme, the Centre will subsidise the losses incurred by airlines flying out of dormant airports to help airlines charge ₹2,500 for an hour's flight to passengers.

**80% of the subsidy will be collected by charging a levy** of up to ₹8,500 on each departing flight of domestic airlines and the rest **20% will come from the respective State governments.**

**Government will provide subsidy to airlines for first three years of operations** when they will have exclusive flying rights on the selected routes. Once the market gets jump started, it will operate on a commercial basis as per market forces of supply and demand.

Sources: the hindu.

**Paper 3 Topic:** Science and Technology- developments and their applications and effects in everyday life Achievements of Indians in science & technology; indigenization of technology and developing new technology.

## **National Science Day**

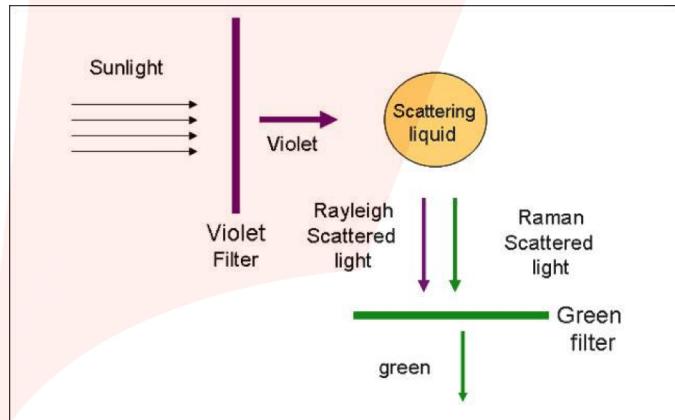
**National Science Day** is celebrated all over India with great enthusiasm on **28th of February** every year in order to commemorate the invention of the **Raman Effect** in India by the Indian physicist, Sir Chandrasekhara Venkata Raman on the same day in the year **1928**. For his great success in the field of science in India, Chandrasekhara Venkata Raman was awarded and honored with the Nobel Prize in the Physics in the year 1930.

**Theme:** the theme for the year 2017 is '**Science and Technology for Specially abled Persons'**.

### **What is Raman effect?**

The Raman Effect is a change in the wavelength of light that occurs when a light beam is deflected by molecules.

When a beam of light traverses a dust-free, transparent sample of a chemical compound, a small fraction of the light emerges in directions other than that of the incident (incoming) beam. Most of this scattered light is of unchanged wavelength. A small part, however, has wavelengths different from that of the incident light; its presence is a result of the Raman effect.



### **Raman's experiment:**

The violet light of the solar spectrum is isolated with a violet filter and passed through the liquid sample. Most of the light emerging from the liquid sample is the same color as the incident violet beam: the so-called Rayleigh scattered light (the scattering of light by particles in a medium, without change in wavelength. It accounts, for example, for the blue colour of the sky, since blue light is scattered slightly more efficiently than red).

However, Raman, along with K S Krishnan was able to show that some of the scattered light was a different color, which they could isolate by using a green filter placed between the observer and the sample.

**Video link:** <https://youtu.be/XobekWSRbHE>

Sources: pib.

## Successful Test Firing of AAD Endo-Atmospheric Interceptor Missile

DRDO recently conducted the successful launch of the interceptor missile Advanced Area Defence (AAD) from Abdul Kalam Island, Odisha.

### Key facts:

- The AAD is part of the two-layered Ballistic Missile Defence system developed by the DRDO, the research and development wing of the Defence Ministry, with the Hyderabad-based Research Centre Imaarat (RCI).
- The endo-atmospheric missile is capable of intercepting incoming targets at an altitude of 15 to 25 kms.
- The interceptor is a 7.5-metre long single stage solid rocket propelled guided missile equipped with a navigation system, a hi-tech computer and an electro-mechanical activator.
- The second level of the system is the endo-atmosphere AAD missile.
- The interceptor missile has its own mobile launcher, secure data link for interception, independent tracking and homing capabilities and sophisticated radars.

### Background:

AAD further validates the reliability of the under-development, two-layered Ballistic Missile Defence (BMD) in shooting down enemy missiles.

The BMD consists of two interceptor missiles, the Prithvi Defence Vehicle (PDV) for exo-atmospheric ranges and the Advanced Area Defence (AAD) missile for endo-atmosphere or lower altitudes. The BMD is critical to protect the country from the long-range ballistic missiles proliferating in the neighbourhood. DRDO expects to have shield ready for deployment by 2022.

Sources: the hindu.

## DMRL AND JSHL Sign Licensing Agreement for Transfer of Technology of High Nitrogen Steel

Defence Metallurgical Research Laboratory (DMRL), Hyderabad, a premier research laboratory of Defence Research and Development Organization (DRDO) and Jindal Stainless (Hisar) Limited (JSHL) have signed the Licensing Agreement for Transfer of Technology of High Nitrogen Steel (HNS) for armour applications.

### About High Nitrogen Steel:

High nitrogen steels (HNS) are a new class of high alloy martensitic, austenitic or duplex grades with up to 0.9 mass% of N in solid solution. They are applied e.g. to stainless tools and bearings, in chemical engineering and for high strength non-magnetic components.

- HNS is not only tough but also has good strength. In addition to being non magnetic as well as corrosion resistant, the HNS cost is about 40% less compared to Rolled Homogenous Armour Steel (RHA).
- This material has potential for a number of defence and civil applications like armouring, mine trawls, oil industries etc.

Sources: pib.

## DRDO Hands Over its Developed Products to Indian Army

Defence Research and Development Organisation (DRDO) recently handed over three of its products for induction into the Indian Army.

- The products are namely (i) Weapon Locating Radar (WLR), SWATHI, (ii) NBC Recce vehicle and (iii) NBC Drugs.
- In 2016, the Weapon Locating Radar, NBC Recce Vehicle and a set of NBC Drugs had been successfully tested after extensive evaluation by competent evaluation teams.

### About WLR SWATHI:

Weapon Locating Radar (WLR), SWATHI, developed by DRDO's Electronics & Radar Development Establishment (LRDE), provides fast, automatic and accurate location of all enemy weapons like mortars, shells and rockets firing within its effective zone of coverage and simultaneously handles multiples projectiles fired from different weapons at different locations.

The system is capable of adjusting the fire of our own artillery weapon also. The weapon includes 81mm or higher calibre mortars, 105mm or higher calibre shells and 120mm or higher calibre free flying rockets. Thus, ***WLR has two roles to perform i.e. Weapon Location Mode for enemy Artillery and Direction of Own artillery Fire (DOOAF) Mode for our own Artillery.***

### NBC Recce Vehicle Mk-1:

The NBC Recce Vehicle Mk-I, is developed by Vehicles Research & Development Establishment (VRDE) ***for carrying out post event recce of Nuclear, Biological and Chemical Contaminated areas.*** It is capable of collecting solid and liquid samples of biologically contaminated areas, mark the nuclear and chemical contamination zone and transfer the recce data speedily to support formations. On successful development of NBC RV Mk-I in association with DL, Jodhpur, the equipment was approved for induction into the Services.

Sources: pib.

## Brahmos missile

India has successfully test-fired the BrahMos supersonic cruise missile, which is capable of carrying a warhead of 300 kg, from a test range along the Odisha coast. The cruise missile was test fired from a mobile launcher.

### Key facts:

- BrahMos has been developed as part of a joint venture between India and Russia, and the missile had an initial range of 290 km. India has been able to work on increasing the range of the BrahMos missile from its current 290 km after it became a member of the prestigious Missile Technology Control Regime (MTCR).
- In its current form (290-km), the BrahMos has a maximum velocity of 2.8 Mach and cruises at altitudes varying from 10 metres to 15 km.
- It can be launched in either inclined or vertical configuration based on the type of the ship. The land-attack version of BrahMos is fitted on an mobile autonomous launcher. BrahMos is also capable of being launched from submarine from a depth of 40-50 metres.
- The missile is capable of carrying a warhead of 300 kg.
- The two-stage missile, one being solid and the second one ramjet liquid propellant, has already been inducted into the Army and Navy, while the Air Force version is in final stage of trial.

### About MTCR:

Established in April 1987, the voluntary MTCR aims to limit the spread of ballistic missiles and other unmanned delivery systems that could be used for chemical, biological, and nuclear attacks.

The MTCR regime urges its members, which include most of the world's key missile manufacturers, to restrict their exports of missiles and related technologies capable of carrying a 500-kilogram payload at least 300 kilometers or delivering any type of weapon of mass destruction.

Sources: the hindu.

## Indian researcher uses novel strategy to increase wheat yield

Using a novel route, an Indian researcher has been able to increase wheat grain yield by 20% and also improve the resilience of wheat to environmental stress such as drought.

### How was it done?

By using a precursor that enhances the amount of a key sugar-signalling molecule (trehalose-6-phosphate (T6P)) produced in wheat plant, the researcher has been able to increase the amount of starch produced and, therefore, the yield.

- The T6P molecule stimulates starch synthesis, which in turn, increases the yield. Since the pathway of T6P molecule is the same in other plants, the yield can potentially be increased by using suitable precursors.
- Researchers used four precursor compounds to increase the amount of T6P produced in the plant. While genetic methods can increase the T6P level two-three fold, the four precursor compounds were able to achieve 100-fold increase in the sugar-signalling molecule level compared with plants that did not receive the molecule.
- In field trials using wheat, a tiny amount of precursor given to the plant increased the yield significantly — the grains produced were bigger as the amount of starch content in the grains increased by 13-20% compared to controls that got only water. “A particular precursor molecule — ortho-nitrophenyl ethyl — showed the best results in both *A. thaliana* plants and wheat studies,” he says. “The uptake of this molecule by the plants was much more than the other three molecules and the precursor took less time to release T6P.”

### Resilience to drought:

To study the resilience of wheat to drought-like conditions when treated with the precursor molecules, the researchers carried out two different studies.

- In the first case, four-week-old wheat plants already treated with the precursor molecules were not watered for nine days to simulate a drought-like condition. The plants were almost dying. When watered the plants after nine days, only those that were pre-treated with the precursors were able to regrow while the control plants did not survive.
- In another experiment, four-week-old wheat plants that were not watered for nine days were sprayed with the precursor molecules. The regrowth of plants sprayed with the molecule was substantial when the plants were watered a day after treatment. Researchers saw regrowth of new tissue and also survival and growth of existing tissue. This also showed that the molecule could enter the plants directly when sprayed.
- Two studies showed that wheat plants were able to survive environmental stress if treated with the precursors. The molecule 2 (dimethoxy (ortho-nitro) benzyl) was better in battling stress.

Sources: the hindu.

## Study on fish reveals key to cure blindness

Scientists have discovered a chemical in the zebra fish brain that helps reveal how it regrows its retina, a finding that can potentially cure blindness in humans.

### What is it?

The findings showed that the levels of GABA (gamma aminobutyric acid), a neurotransmitter, best known for its role of calming nervous activity, drop when the unique self repair process kicks in.

Thus, blocking the chemical (GABA) could lead to new treatments for AMD (age-related macular degeneration), the most common cause of blindness and retinitis pigmentosa.

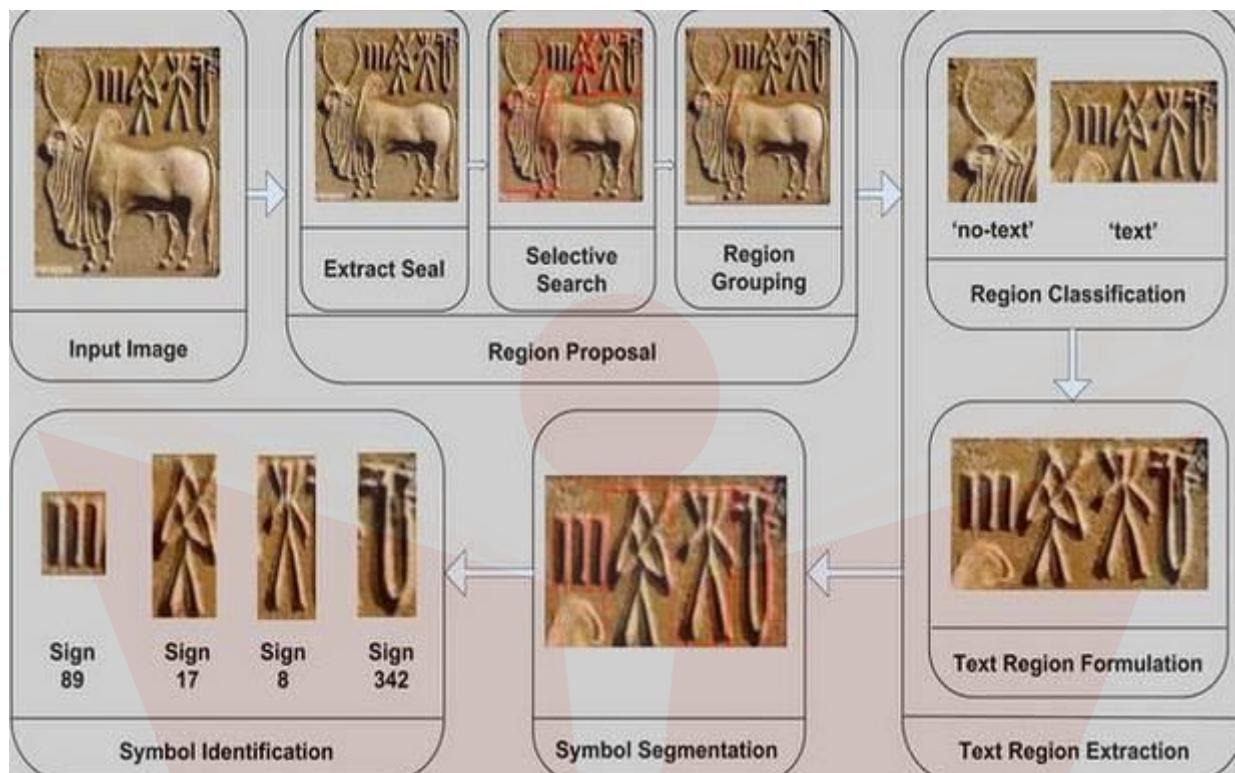
## Background:

The structure of the retinas (the light-sensing tissue at the back of the eye) of fish and mammals are basically the same and a reduction in GABA might be the trigger for retinal regeneration.

Sources: the hindu.

## Chennai team taps AI to read Indus Script

The Indus script has long challenged epigraphists because of the difficulty in reading and classifying text and symbols on the artefacts. Now, a Chennai-based team of scientists has built a programme which eases the process.



### Key facts:

Researchers have developed a “deep-learning” algorithm that can read the Indus script from images of artefacts such as a seal or pottery that contain Indus writing.

Scanning the image, the algorithm smartly “recognises” the region of the image that contains the script, breaks it up into individual graphemes (the term in linguistics for the smallest unit of the script) and finally identifies these using data from a standard corpus. In linguistics the term corpus is used to describe a large collection of texts which, among other things, are used to carry out statistical analyses of languages.

The process consists of three phases: In the first phase, the input images are broken into sub-images that contain graphemes only, by trimming out the areas that do not have graphemes. The grapheme-containing areas are further trimmed into single-grapheme pieces. Lastly, each of these single graphemes is classified to match one of the 417 symbols discovered so far in the Indus script.

### About the technology:

The algorithms come under a class of artificial intelligence called “deep neural networks.” These have been a major part of the game-changing technology behind self-driving cars and Go-playing bots that surpass human performance.

The deep neural network mimics the working of the mammalian visual cortex, known as convolutional neural network (CNN), which breaks the field into overlapping regions. The features found in each region are hierarchically combined by the network to build a composite understanding of the whole picture.

## **Background:**

The Indus valley script is much older than the Prakrit and Tamil-Brahmi scripts. However, unlike the latter two, it has not yet been deciphered because a bilingual text has not yet been found.

Sources: the hindu.

## **Sweet spot in eye helps humans read**

Scientists have found that a special sweet spot in the eye called ‘fovea’ plays a crucial role in humans being able to focus on computer screens and also read, an ability which is unique to Homo sapiens.

### **What is fovea?**

The fovea is a specialised region that dominates our visual perception. It provides more than half of the input from the eyes to the visual cortex of the brain.

The fovea is responsible for our visual experiences that are rich in colourful spatial detail.

### **How it works?**

Located near the optic nerve, the fovea is at its best for fine tasks like reading. Compared to the peripheral retina, however, the fovea is less able to process rapidly changing visual signals.

This low sensitivity is what makes us see motion in flipbooks and movies. It’s also what prevents us from seeing flicker when a computer or TV screen refreshes, unless we glance at the screen (especially the old-fashioned CRT monitors) from the corner of our eye.

When you look at a scene an arm’s length away, the fovea subtends a field only about the size of your thumbnail. Our eyes undergo rapid movements to direct the fovea to various parts of the scene.

### **Key facts:**

- Vision scientists have uncovered some of the reasons behind the unusual perceptual properties of the eye’s fovea. Among mammals, only humans and other primates have this dimple-like structure in their retinas. Owls, some other predatory birds, and some reptiles have a similar structure.
- Diseases such as macular degeneration are much more debilitating than deficits in peripheral eyesight because of the importance of the fovea to everyday vision.
- The findings decipher the mechanism that lets humans read the text, recognise faces, enjoy colours.

Sources: the hindu.

## **Cabinet approves Policy for Early Monetization of Coal Bed Methane Gas Marketing and Pricing Freedom for CBM Gas**

The **Cabinet Committee on Economic Affairs** has given its approval for marketing and pricing freedom to the Coal Bed Methane (CBM) Contractors to sell the CBM at Arm’s Length Price in the domestic market.

### **Key facts:**

- According to the policy, while discovering the market price for Arms Length Sales, the Contractor has to ensure a fully transparent and competitive process for sale of CBM with the objective that the best possible price is realized for the gas without any restrictive commercial practices.
- CBM contractors have also been permitted to sell the CBM to its any affiliate, in the event contractor cannot identify any buyer. Royalty and other dues to the Government, however, shall be payable on the basis of Petroleum Planning & Analysis Cell (PPAC) notified prices or selling prices, whichever is higher.

- The policy is expected to incentivize the CBM operation in the country to boost gas production and will generate economic activities which in turn will be beneficial for creating more employment opportunities in CBM operations and related activities.

### About Coal Bed Methane:

Coal Bed Methane (CBM) is an unconventional form of **natural gas** found in coal deposits or coal seams. CMB is formed during the process of **coalification**, the transformation of plant material into coal. It is considered a valuable energy resource with reserves and production having grown nearly every year since 1989. Varied methods of recovery make CBM a stable source of energy.

- CBM can be recovered from underground coal before, during, or after mining operations. It can also be extracted from “unminable” coal seams that are relatively deep, thin or of poor or inconsistent quality. Vertical and horizontal wells are used to develop CBM resources. Extraction requires drilling wells into the coal seams and removing water contained in the seam to reduce hydrostatic pressure and release absorbed (and free) gas out of the coal.

### India's CBM potential:

Coalbed Methane (CBM), an unconventional source of natural gas is now considered as an **alternative source** for augmenting India's energy resource. **India** has the **fifth largest** proven coal reserves in the world and thus holds significant prospects for exploration and exploitation of CBM. The prognosticated CBM resources in the country are about 92 TCF (2600 BCM) in 12 states of India.

- In order to harness CBM potential in the country, the Government of India formulated CBM policy in 1997 wherein CBM being Natural Gas is explored and exploited under the provisions of OIL Fields (Regulation & Development) Act 1948 (ORD Act 1948) and Petroleum & Natural Gas Rules 1959 (P&NG Rules 1959) administered by Ministry of Petroleum & Natural Gas (MOP&NG).
- The **Gondwana sediments of eastern India** host the bulk of India's coal reserves and all the current CBM producing blocks. The vast majority of the best prospective areas for CBM development are in eastern India, situated in **Damodar Koel valley** and **Son valley**. CBM projects exist in Raniganj South, Raniganj East and Raniganj North areas in the Raniganj coalfield, the Parbatpur block in Jharia coalfield and the East and west Bokaro coalfields.

Sources: pib.

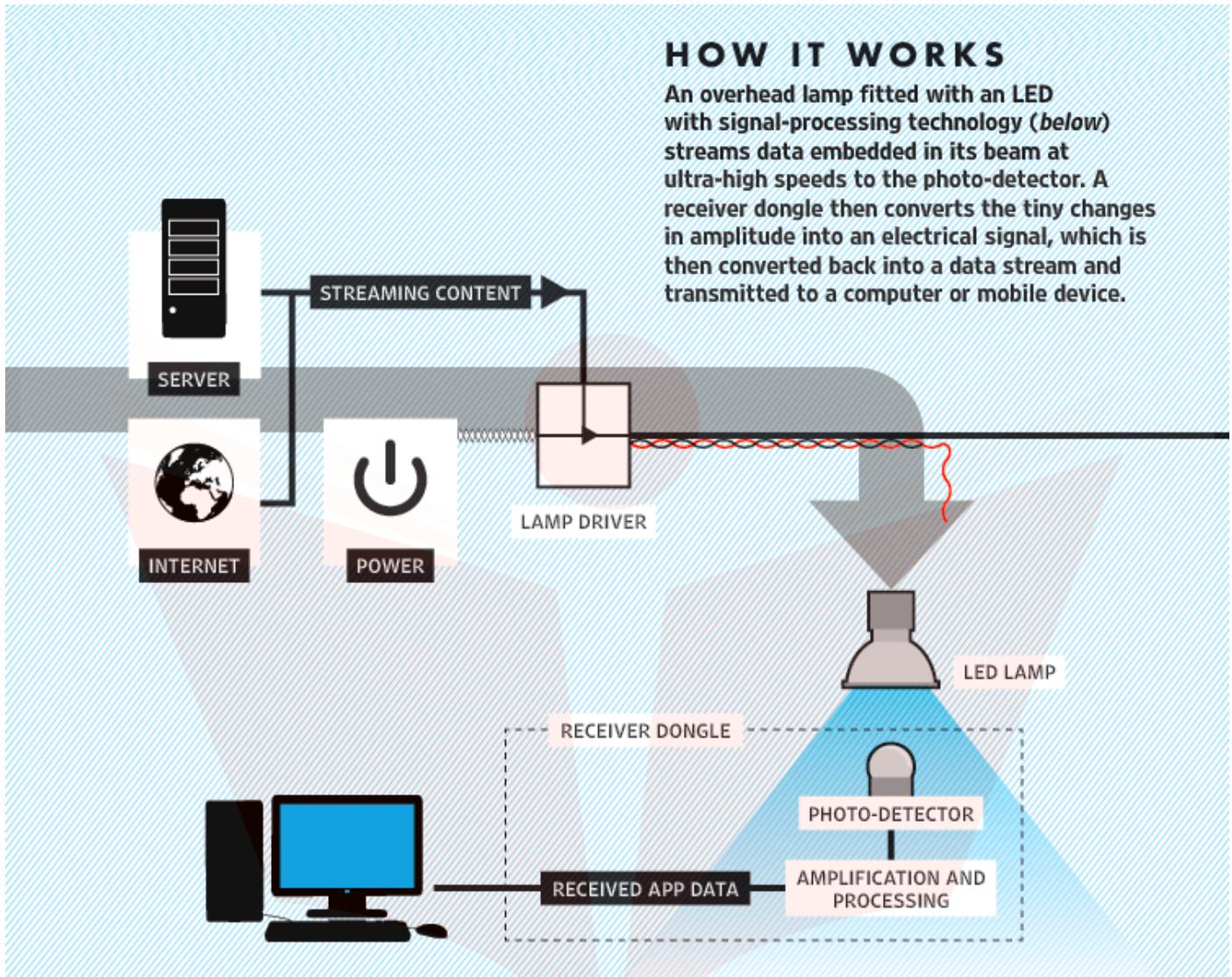
## New Wi-Fi system to offer super-fast connectivity

Scientists have developed a new wireless Internet based on infrared rays that is reportedly 100 times faster than existing Wi-Fi networks. A light-based system, also known as ‘Li-Fi,’ could make wireless networks much more secure.

### Key facts:

- The wireless network not only has a huge capacity — more than 40 Gigabits per second (Gbit/s) — but does away with the need to share Wi-Fi as every device gets its own ray of light.
- The wireless data comes from a few central ‘light antennas’, which can be mounted on the ceiling, that are able to precisely direct the rays of light supplied by an optical fibre.
- The antennas contain a pair of gratings that radiate light rays of different wavelengths at different angles (‘passive diffraction gratings’).
- Changing the light wavelengths also changes the direction of the ray of light. A safe infrared wavelength is used that does not reach the retina in the eye.
- If a user is walking about and a smartphone or tablet moves out of the light antenna's direction, then another light antenna takes over.

- The network tracks the precise location of every wireless device using its radio signal transmitted in the return direction.
- Different devices are assigned different wavelengths by the same light antenna and so do not have to share capacity.
- Current Wi-Fi uses radio signals with a frequency of 2.5 or five gigahertz. The new system uses infrared light with wavelengths of 1,500 nanometres and higher.



Sources: the hindu.

## Green nod for Neutrino project suspended

The Southern Bench of the National Green Tribunal has suspended the Environmental Clearance (EC) granted to the India-based Neutrino Observatory (INO) that was to come up in Theni and asked the project proponent to make a fresh application.

### Why was it suspended?

The Tribunal found that the **Mathikettan Shola National Park** in Idukki district of **Kerala** was just about 4.9 km from the proposed project site and the Tamil Nadu-Kerala border was just a kilometre away, making it a Category 'A' project.

## What the rules say?

Under the guidelines laid down by the Environment Ministry, any project that falls within 5 km from an inter-State boundary or within a notified national park or a sanctuary has to be considered a Category 'A' project that involves a number of processes before an EC is granted.

## Background:

In this case, the MoEF had called it a Category 'B' project, for which an Environmental Impact Assessment is not necessary, but the department processed it as an additional measure.

## Way ahead:

Since the proposed project is near a national park, the INO has also been asked to get clearance from the National Board for Wildlife.

## About INO:

The India-based Neutrino Observatory (INO) Project is a multi-institutional effort aimed at building a world-class underground laboratory with a rock cover of approximately 1200 m for non-accelerator based high energy and nuclear physics research in India.

- When completed, the main magnetised iron calorimeter (ICAL) experiment include the world's most massive magnet, four times larger than the 12,500-tonne magnet in the Compact Muon Solenoid detector at CERN in Geneva, Switzerland.

## The project includes:

- Construction of an underground laboratory and associated surface facilities at Pottipuram in Bodi West hills of Theni District of Tamil Nadu.
- Construction of a Iron Calorimeter (ICAL) detector for studying neutrinos, consisting of 50000 tons of magnetized iron plates arranged in stacks with gaps in between where Resistive Plate Chambers (RPCs) would be inserted as active detectors, the total number of 2m X 2m RPCs being around 29000.
- Setting up of National Centre for High Energy Physics at Madurai, for the operation and maintenance of the underground laboratory, human resource development and detector R&D along with its applications. The underground laboratory, consisting of a large cavern of size 132m X 26m X 20m and several smaller caverns, will be accessed by a 2100 m long and 7.5 m wide tunnel.

## What is INO being built for?

The initial goal of INO is to study neutrinos. Neutrinos are fundamental particles belonging to the lepton family. They come in three flavours, one associated with electrons and the others with their heavier cousins the muon and the Tau. According to standard model of particle physics, they are mass less. However recent experiments indicate that these charge-neutral fundamental particles, have finite but small mass which is unknown. They oscillate between flavours as they propagate. Determination of neutrino masses and mixing parameters is one of the most important open problems in physics today. The ICAL detector is designed to address some of these key open problems in a unique way.



Over the years this underground facility is expected to develop into a full-fledged underground science laboratory for other studies in physics, biology, geology, hydrology etc.

Sources: the hindu.

## Third largest hypersonic wind tunnel at VSSC

Indigenously developed hypersonic wind tunnel and shock tunnel, the third largest in terms of size and simulation capability in the world, have been commissioned at the Vikram Sarabhai Space Centre (VSSC).

### What is it for?

A wind tunnel is used to study the effects of air flowing past a solid object—in ISRO's case, space vehicles. With the space agency lining up big missions like the 'Reusable Launch Vehicle' (RLV), 'Two Stage to Orbit' (TSTO) rockets, air breathing propulsion systems, and the human space flight programme for the future, the aero-thermodynamic modelling of such vehicles in a hypersonic environment is vital for optimal designs.

### Significance of this move:

Commissioning of such facilities would provide adequate data for design and development of current and future Space transportation systems in the country. The commissioning of the facility also symbolises the country's capability in establishing such world class facilities wherein technology from outside is restricted or not available.

The facility will also help aerodynamic characterisation of advanced space transportation systems.

### The need for wind tunnels and shock tunnels:

- Aerospace vehicles fly at high speed, often greater than the speed of sound. Their re-entry through the atmosphere is at high Mach numbers, the modelling of which is intricate.
- Hypersonic Wind Tunnel and Shock Tunnel facilities are used to simulate the aero-thermal environment where characterisation of vehicles is carried out. Facilities existing in the country are smaller in size and have limited simulation capabilities.
- One metre hypersonic wind tunnel can simulate flow speeds of Mach 6 to 12.
- One metre shock tunnel simulates flight speed of 4.5 kilometres per second.

Sources: the hindu.

## Scientists switch on the world's largest 'artificial sun'

Scientists in **Germany** have switched on what is being described as the **world's largest artificial sun** – a device they hope will help shed light on new ways of making climate-friendly fuels.

### What is it?

The giant honeycomb-like set-up of 149 spotlights – officially known as **Synlight** – in Juelich, about 20 miles west of Cologne, uses xenon short-arc lamps normally found in cinemas to simulate natural sunlight which is often in short supply in Germany at this time of year.

### What it does?

By focusing the entire array on a single 8x8in spot, scientists from the German Aerospace Centre (DLR) will be able to produce the equivalent of 10,000 times the amount of solar radiation which would normally shine on the same surface.

- When all the lamps are swivelled to concentrate light on a single spot, the instrument can generate temperatures of around 3,500C – around two to three times the temperature of a blast furnace.

- The aim of the experiment is to come up with the optimal setup for concentrating natural sunlight to power a reaction to produce hydrogen fuel.

### **Significance of this experiment:**

Creating such furnace-like conditions – with temperatures of up to 3,500C (5,432F) – is key to **testing novel ways of making hydrogen**. The Synlight experiment is investigating the possibility that a similar setup could be used to power a reaction to extract hydrogen from water vapour, which could then be used as a fuel source for aeroplanes and cars.

### **Background:**

Hydrogen is the most common element in the universe, but free, uncombined hydrogen gas is relatively rare on earth. One way to manufacture hydrogen is to split water into its two components – the other being oxygen – using electricity in a process called electrolysis. Researchers hope to bypass the electricity stage by tapping into the enormous amount of energy that reaches Earth in the form of light from the sun.

Many consider hydrogen to be the fuel of the future because it produces no carbon emissions when burned, meaning it does not add to global warming.

### **Way ahead:**

The goal of this experiment is to eventually use actual sunlight rather than the artificial light produced at the Juelich experiment, which cost 3.5 million euros (£3 million) to build and requires as much electricity in four hours as a four-person household would use in a year.

Sources: the hindu.

**Paper 3 Topic:** Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

## **Trade Mark Rules 2017**

The Trade Mark Rules, 2017 have been notified by the government. These Rules, which replace the erstwhile Trade Mark Rules 2002, will streamline and simplify the processing of Trade Mark applications.

### **Some salient features of the revamped Rules are as follows:**

- Number of Trade Mark (TM) Forms have been reduced from 74 to 8.
- To promote e-filing of TM applications, the fee for online filing has been kept at 10% lower than that for physical filing.
- Based on stakeholders feedback, the fees for Individuals, Start-ups and Small Enterprises have been reduced from that proposed in the draft Rules – i.e. only Rs 4,500 as against Rs 8,000 for e-filing of TM applications proposed at the draft stage.
- Modalities for determination of well-known trademarks have been laid out for the first time.
- The provisions relating to expedited processing of an application for registration of a trade mark have been extended right upto registration stage (hitherto, it was only upto examination stage).
- Over all fees have been rationalized by reducing the number of entries in Schedule I from 88 to just 23.
- Modalities for service of documents from applicants to the Registry and vice-versa through electronic means have been introduced to expedite the process; e-mail has been made an essential part of address for service to be provided by the applicant or any party to the proceedings so that the office communication may be sent through email.
- Hearing through video conferencing has been introduced.

- Number of adjournments in opposition proceedings has been restricted to a maximum of two by each party, which will help dispose off matters in time.
- Procedures relating to registration as Registered User of trademarks have also been simplified.

### **Administration of trade marks in India:**

The Trade Marks Registry was established in India in 1940 and presently it administers the Trade Marks Act, 1999 and the rules made thereunder. It acts as a resource and information Centre and is a facilitator in matters relating to trademarks in the country.

- The objective of the Trade Marks Act, 1999 is to register trademarks applied for in the country and to provide for better protection of trademark for goods and services and also to prevent fraudulent use of the mark.
- The main function of the Registry is to register trademarks which qualify for registration as per provisions of the Trade Marks Act and Rules, and to maintain the Register of trademarks.
- After accession to the Madrid Protocol, a treaty under the Madrid System for international registration of trademarks, the Trade Marks Registry also functions as an office of origin in respect of applications made by Indian entrepreneurs for international registration of their trademarks and as an office of the designated Contracting party in respect of international registrations in which India has been designated for protection of the relevant trademarks.
- Apart from the above, the Registry has to discharge various other functions like offering preliminary advice as to registrability; causing a search to be made for issue a certificate under Section 45(1) of the Copyright Act, 1957 to the effect that no trademark identical with or deceptively similar to such artist work as sought to be registered as a copyright has been registered as a trademark; providing public information and guidance to the public on the subject; providing information to various government agencies including Police, Central Excise personnel, Public Grievance Redressal, maintenance of top class IP library, the production of annual statistical report, production of official Trade Marks Journal in electronic form and submit an Annual Report to Parliament.
- The Controller General of Patents, Designs and Trade Marks heads the TRADE MARKS Registry offices and functions as the Registrar of TRADE MARKS. He, from time to time, assigns functions of the Registrar to other officers appointed by the Central Government and such officers also function as Registrar in respect of matters assigned to them.

### **What is a trademark?**

Trade mark means a mark capable of being represented graphically and which is capable of distinguishing the goods or services of one person from those of others and may include shape of goods, their packaging and combination of colours.

Sources: pib.

## **NASA to explore Jupiter's icy moon**

NASA's 'Europa Clipper' set to launch in the 2020s will probe the habitability of Jupiter's icy moon **Europa**.

### **Key facts:**

- The mission plan includes 40 to 45 flybys, during which the spacecraft would image the moon's icy surface at high resolution and investigate its composition and the structure of its interior and icy shell.
- Europa has long been a high priority for exploration because it holds a **salty liquid water ocean** beneath its icy crust.
- The ultimate **aim of Europa Clipper is to determine if Europa is habitable, possessing all three of the ingredients necessary for life**: liquid water, chemical

ingredients, and energy sources sufficient to enable biology.

Sources: the hindu.

## 'Lost' Chandrayaan-1 orbiting Moon: NASA

India's **first mission to Moon**, the **Chandrayaan-1**, that was considered lost almost eight years back, has been found orbiting the Moon some 200 kilometers above the lunar surface.

### How was it found?

According to a recent NASA report, "A new technological application of interplanetary radar pioneered by scientists at NASA's Jet Propulsion Laboratory in Pasadena, California, has successfully located spacecraft orbiting the moon – one active, and one dormant. This new technique could assist planners of future moon missions."

To find a spacecraft 380,000 km away, scientists used the 70-metre antenna at NASA's Goldstone Deep Space Communications Complex in California to send out a powerful beam of microwaves towards the moon. Then the radar echoes bounced back from lunar orbit were received by the 100-metre Green Bank Telescope in West Virginia.

JPL's orbital calculations indicated that Chandrayaan-1 is still circling some 200 km above the lunar surface.

### About Chandrayaan-1:

Indian Space Research Organisation (ISRO) lost communication with Chandrayaan-1 on August 29, 2009, barely a year after it was launched on October 22, 2008.

- The Chandrayaan-1 mission performed high-resolution remote sensing of the moon in visible, near infrared (NIR), low energy X-rays and high-energy X-ray regions.
- One of the objectives was to prepare a three-dimensional atlas (with high spatial and altitude resolution) of both near and far side of the moon.
- It aimed at conducting chemical and mineralogical mapping of the entire lunar surface for distribution of mineral and chemical elements such as Magnesium, Aluminium, Silicon, Calcium, Iron and Titanium as well as high atomic number elements such as Radon, Uranium and Thorium with high spatial resolution.

### LRO:

In addition to finding Chandrayaan-1, the scientists also located NASA's Lunar Reconnaissance Orbiter around the Moon. LRO is a robotic mission that set out to map the moon's surface.

Data collected by LRO has been described as essential for planning NASA's future human and robotic missions to the Moon. Its detailed mapping program is identifying safe landing sites, locating potential resources on the Moon, characterizing the radiation environment, and demonstrating new technologies.

Sources: the hindu.

## Telescope upgrade to sniff out solar storms

The GRAPES-3 experiment at TIFR's Cosmic Ray Laboratory in Ootacamund in Tamil Nadu is getting upgraded. The telescope made news last year when it detected the effect of a solar storm that hit the earth in June 2015.

### Key facts:

- GRAPES-3 has an important role in understanding the propagation of storms from the L1 point to its impact on the Earth.
- The upgrade will play a major role in getting precise information about the propagation of storms in 'the last million miles' (from the L-1 point) of their journey from the Sun to the earth.

- The upgraded detector will have an increased coverage of the sky and improved capacity to determine the direction of incident cosmic rays. The latter property, of being able to discern the direction of detected particles, makes it unique among cosmic ray detectors in the world; it can also measure the intensity of the particles.
- Since the enhanced facility can cover a wider field of view (from present 37% to 57%), the chances of spotting solar storms will be higher.

## **Background:**

The sun is at a distance of 150 million kilometres from the earth, and satellites have been placed at a distance of nearly 1.5 million kilometres, at the so-called L1 point, where they orbit the Sun along with the Earth. Since charged particles from a solar storm will first impact the satellites before hitting the earth, they act as an early warning system. Depending on the speed of the storm, it will take about 20-40 minutes to reach the earth from the L1 point.

## **Need to understand solar storms:**

It is important to know the time when plasma will reach the earth, accurately, so that preventive and protective measures can be put into place in case a solar storm were to strike the earth.

- If the earth's magnetic field were to be weakened by extreme solar storms, charged particles would shower on to the planet. Apart from rendering electronic devices defunct, charged particles in an extreme solar storm can also short current carrying over-head high voltage lines, leading to large-scale transformers burn out and thereby, power blackouts.
- A 2008 study conducted by the U.S. National Academy of Sciences estimated that an extreme event could lead to a loss of 40% of transformers in the U.S., which, in turn, could take years to restore.
- The up side is that the way to prevent such a disaster is well understood: simply switch off the power lines on being informed of an approaching solar storm! And for this to be possible, an accurate determination of the time taken for the solar storm to travel to the earth is needed, which is where the GRAPES-3 set up comes in.

## **About GRAPES 3:**

The **GRAPES-3** experiment (or Gamma Ray Astronomy PeV EnergieS phase-3) located at **Ooty** in India started as a collaboration of the Indian Tata Institute of Fundamental Research and the Japanese Osaka City University, and now also includes the Japanese Nagoya Women's University.

- GRAPES-3 is designed to **study cosmic rays** with an array of air shower detectors and a **large area muon detector**.
- It aims to probe acceleration of cosmic rays in the following four astrophysical settings. These include acceleration of particles to, (i) ~100 MeV in atmospheric electric fields through muons, (ii) ~10 GeV in the Solar System through muons, (iii) ~1 PeV in our galaxy, (iv) ~100 EeV in the nearby universe through measurement of diffuse gamma ray flux.
- The observations began with 217 plastic scintillators and a 560 m<sup>2</sup> area muon detector in 2000. The scintillators detect charged particles contained in extensive air showers produced by interaction of high energy cosmic rays in the atmosphere.

Sources: the hindu.

## **Massive brown dwarf 750 light years away**

Scientists have identified a record-breaking brown dwarf, which possesses the ‘purest’ composition that is about 90 times as massive as the planet Jupiter, located 750 light years away in the outermost reaches of our galaxy.

## **What are brown dwarfs?**

Brown dwarfs are **intermediate between planets and fully-fledged stars**.

The mass of brown dwarfs is too small for full nuclear fusion of hydrogen to helium (with a consequent release of energy) to take place, but they are usually significantly more massive than planets.

#### Key facts:

- The new object, known as SDSS J0104+1535, is located 750 light years away in the constellation of Pisces.
- It is made of **gas that is around 250 times purer than the Sun**, hence consists of more than **99% hydrogen and helium**.
- Estimated to have formed about 10 billion years ago, measurements also suggest that it has a **mass equivalent to 90 times that of Jupiter**, making it **the most massive brown dwarf found to date**.
- It was previously not known if brown dwarfs could form from such primordial gas, and the discovery points the way to a larger undiscovered population of extremely pure brown dwarfs from our Galaxy's ancient past
- The researchers have classified SDSS J0104+1535 as an **L-type ultra-subdwarf** using its optical and near-infrared spectrum, which has been measured using the **European Southern Observatory's Very Large Telescope (VLT)**.

#### About VLT:

The Very Large Telescope (VLT) is a telescope facility operated by the **European Southern Observatory on Cerro Paranal in the Atacama Desert of northern Chile**.

- The VLT consists of four individual telescopes, each with a primary mirror 8.2 m across, which are generally used separately but can be used together to achieve very high angular resolution. The four separate optical telescopes are known as Antu, Kueyen, Melipal and Yepun, which are **all words for astronomical objects in the Mapuche language**.
- The VLT operates at **visible and infrared wavelengths**. Each individual telescope can detect objects roughly four billion times fainter than can be detected with the naked eye, and when all the telescopes are combined, the facility can achieve an angular resolution of about 0.001 arc-second. This is equivalent to roughly 2 meters resolution at the distance of the Moon.
- The VLT is the most productive ground-based facility for astronomy, with only the Hubble Space Telescope generating more scientific papers among facilities operating at visible wavelengths.

Sources: the hindu.

## Sands of Saturn's moon Titan are electrically charged

The particles that cover the surface of Saturn's largest moon, Titan, are "electrically charged", show results of an experiment.

#### Significance of this discovery:

This discovery may help explain an odd phenomenon — **prevailing winds on Titan blow from east to west across the moon's surface, but sandy dunes nearly 300 feet tall seem to form in the opposite direction**.

#### Background:

Experiments suggest the particles that cover the surface of Saturn's moon, Titan, are 'electrically charged.' When the **wind blows hard enough, Titan's non-silicate granules get kicked up and start to hop in a motion**. As they collide, they become **frictionally charged**, like a balloon rubbing against your



hair, and **clump together** in a way not observed for sand dune grains on Earth — they become **resistant to further motion**.

They maintain that charge for days or months at a time and attach to other hydrocarbon substances, much like packing peanuts used in shipping boxes here on Earth.

#### About Titan:

- Titan is the **largest moon of Saturn**. It is the **only moon known to have a dense atmosphere**, and the **only object in space other than Earth where clear evidence of stable bodies of surface liquid has been found**.
- Titan is the **sixth ellipsoidal moon from Saturn**. Frequently described as a planet-like moon, Titan is **50% larger than Earth's Moon**, and it is 80% more massive.
- It is the **second-largest moon in the Solar System**, after Jupiter's moon Ganymede, and is **larger than the smallest planet, Mercury**, but only 40% as massive.
- Titan's atmosphere is composed of **98% nitrogen**. Minor components lead to the formation of **methane and ethane clouds and nitrogen-rich organic smog**.
- With its liquids (both surface and subsurface) and robust nitrogen atmosphere, **Titan's methane cycle is analogous to Earth's water cycle**, at the much lower temperature of about 94 K (-179.2 °C).

Sources: the hindu.

## Planetary waves, first found on Earth, are discovered on Sun

The same kind of large-scale **planetary waves that meander through the atmosphere high above Earth's surface may also exist on the Sun**, according to a new study led by a scientist at the [National Center for Atmospheric Research](#) (NCAR).

#### Key facts:

- Just as the large-scale waves that form on Earth, known as **Rossby waves, influence local weather patterns, the waves discovered on the Sun may be intimately tied to solar activity**, including the formation of sunspots, active regions, and the eruption of solar flares.
- **On Earth, Rossby waves are associated with the path of the jet stream and the formation of low- and high-pressure systems**, which in turn influence local weather events. The waves form in rotating fluids—in the atmosphere and in the oceans. Because the Sun is also rotating, and because it's made largely of plasma that acts, in some ways, like a vast magnetized ocean, Rossby-like waves may exist.
- The discovery of magnetized Rossby waves on the Sun offers the tantalizing possibility that we can predict space weather much further in advance.



#### About the discovery:

Scientists lacked the tools to distinguish this wave pattern until recently. It is because, **unlike Earth, which is scrutinized at numerous angles by satellites in space, scientists historically have been able to study the Sun from only one viewpoint: as seen from the direction of Earth**.

But for a brief period, from 2011 to 2014, scientists had the unprecedented opportunity to see the Sun's entire atmosphere at once. During that time, observations from **NASA's Solar Dynamics Observatory (SDO)**, which sits between the Sun and the Earth, were supplemented by measurements from **NASA's Solar Terrestrial Relations Observatory (STEREO) mission**, which included two spacecraft orbiting the Sun.

Collectively, the three observatories provided a 360-degree view of the Sun until contact was lost with one of the STEREO spacecraft in 2014. The data collected during the window of full solar coverage was studied to see if the large-scale wave patterns might emerge.

Sources: [toi](#).

**Paper 3 Topic:** Conservation, environmental pollution and degradation, environmental impact assessment.

## Madras HC orders TN govt to enact law on removal of seemai karuvelam trees

The Madurai bench of the Madras high court has directed the Tamil Nadu government to enact a law with prohibitory and penal clauses within two months to eradicate seemai karuvelam trees (*prosopis juliflora*). It also directed the government to release perennial funds to the district collectors in the state for removing of the seemai karuvelam trees.

### What's the issue?

The seemai karuvelam tree that sucks a lot of water has invaded into water bodies and dry lands of government and private people. Since such trees ultimately affect the agricultural activities, a batch of cases for their eradication was filed before the high court bench.

### About Seema Karuvelam trees:

The Karuvelam tree, or *prosopis juliflora* as its known biologically, is a species native to West Africa and was brought to Tamil Nadu in 1960s as fuelwood. Slowly, these seeds started drifting into dams and rivers, causing problems. Apparently, the plant is such that no other species can co-exist with it, and it has already caused drying up of several water bodies in the state, adding to the woes of the water-starved state.

According to a report, Karuvelam tree absorbs more than four litres of water to obtain one kilogram of biomass. It cannot even shelter birds as it produces less oxygen and more carbon dioxide. If it does not have sufficient water it begins absorbing groundwater. And if there is no groundwater, it starts absorbing humidity from the surroundings. It can also turn the groundwater poisonous.

Sources: [the hindu](#).

## Even hill stations will be hotter this year, warns IMD

India Meteorological Department has forecast "above normal" temperatures across most of the country.

### Key facts:

- The IMD weather model, used to prepare the forecast, shows a 47% probability of summer temperatures being above normal.
- Himachal Pradesh, Uttarakhand, Jammu and Kashmir are expected to be particularly hot with predicted temperatures, on average, likely to be well above 1 degree C above their normal summer temperatures.
- Punjab, Delhi, Haryana, Rajasthan, Uttar Pradesh, Gujarat, Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, West Bengal, Odisha and Telangana are other States in the "core heat zone" that are likely to see significantly warmer temperatures.
- The summer forecast is in line with a generally warm trend over previous months. 2016 was the warmest year in a century, according to the IMD, with the country 0.91 C warmer than the 1961-1990 average.
- The weather agency blames global warming for this. Studies indicate increasing trends in the frequency and duration of heat waves over the country. This can be attributed to increasing trends in the greenhouse gases and the warming of the sea surface temperatures over the equatorial Indian and Pacific oceans.

## About IMD:

The India Meteorological Department (IMD), also referred to as the Met Department, is an agency of the Ministry of Earth Sciences of the Government of India. It is the principal agency responsible for meteorological observations, weather forecasting and seismology. IMD is headquartered in New Delhi and operates hundreds of observation stations across India and Antarctica.

IMD is also one of the six Regional Specialised Meteorological Centres of the World Meteorological Organization. It has the responsibility for forecasting, naming and distribution of warnings for tropical cyclones in the Northern Indian Ocean region, including the Malacca Straits, the Bay of Bengal, the Arabian Sea and the Persian Gulf.

Sources: the hindu.

## World Wildlife Day

World Wildlife Day was celebrated on March 3<sup>rd</sup>.

- **Theme for 2017 is “Listen to the Young Voices.”** Given that almost one quarter of the world’s population is aged between 10 and 24, vigorous efforts need to be made to encourage young people, as the future leaders and decision makers of the world, to act at both local and global levels to protect endangered wildlife.
- World Wildlife Day 2017 encourages youth around the world to rally together to address ongoing major threats to wildlife including habitat change, over-exploitation or illicit trafficking.

## Background:

On 20 December 2013, at its 68th session, the United Nations General Assembly (UNGA) proclaimed 3 March, the day of signature of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), as UN World Wildlife Day to celebrate and raise awareness of the world’s wild animals and plants. The UNGA resolution also designated the CITES Secretariat as the facilitator for the global observance of this special day for wildlife on the UN calendar.

## About CITES:

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is an international regulatory treaty between 182 member states. It was formed in 1973 and regulates the international trade in over 35,000 wild species of plants and animals.

The focus of the convention is not solely on the protection of species. It also promotes controlled trade that is not detrimental to the sustainability of wild species. It has become the best-known conservation convention in the world.

## How does CITES work?

The convention works primarily through a system of classification and licensing. Wild species are categorised in Appendices I to III. This often reflects species’ threat status on the Red List of the IUCN, the International Union for Conservation of Nature’s Red List of Threatened Species first created in 1964.

- Appendix I prohibits trade in species classified as highly endangered. Appendix II allows trade under very specific conditions. This requires exporting countries obtain a permit, but not the importing country. Appendix III species require only a certificate of origin to be traded.
- National CITES management authorities may issue permits once scientific authorities show non-detriment findings. In other words, scientific evidence must demonstrate that species sustainability will not be adversely affected by trade. Where data is lacking, the precautionary principle applies.

Sources: pib.

## For Olive Ridleys, it's paradise lost

Tens of thousands of eggs laid by Olive Ridley sea turtles this year in Gahirmatha Sanctuary in Odisha, one of the world's largest nesting grounds, are getting destroyed due to shrinking coastal space.

### Background:

6,04,046 turtles have come to lay eggs at Nasi II island of Gahirmatha from February 22. The turtles had largely given the island a miss in 2016, with only 50,000 coming to nest.

Since the small island can not host all those that turned up this year, only 50% of eggs may survive.

### About Gahirmatha Marine Sanctuary:

**Gahirmatha Marine Sanctuary** is a marine wildlife sanctuary located in **Odisha**. It extends from **Dhamra River** mouth in the north to **Mahanadi river** mouth in the south. It is very famous for its nesting beach for olive ridley sea turtles. It is the one of world's most important nesting beach for turtles.

**Olive Ridley sea turtle** has found place in **Schedule – I of Indian Wildlife (Protection) Act, 1972 (amended 1991)**. All the species of sea turtles in the coastal water of Odisha are listed as "endangered" as per IUCN Red Data Book. The sea turtles are protected under the 'Migratory Species Convention' and CITES (Convention of International Trade on Wildlife Flora and Fauna). India is a signatory nation to all these conventions. The 'Homing' characteristics of the Ridley sea turtles make them more prone to mass casualty.

Sources: the hindu.

## Centre dithers on Western Ghats issue

After several years of discussions, the government has finally notified nearly 57,000 square km area in the Western Ghats region as ecologically sensitive area (ESA) where all kinds of mining activities, large constructions, thermal power plants and highly polluting industries would no longer be allowed. The 56,825 square km of land is spread over **six states of Gujarat, Maharashtra, Goa, Karnataka, Kerala and Tamil Nadu**.

- The notification covers an area that is slightly less than the 59,940 square km of area identified by a committee headed by ex-ISRO chief K Kasturirangan in 2013.

### Background:

Western Ghats is a 1,500-km biodiversity-rich geological formation along the western Indian coast, which is also rich in minerals. Demarcation of an ESA is an effort to protect the fragile eco-system from indiscriminate industrialisation, mining and unregulated development. Two committees were appointed in the last eight years to identify the areas that needed to be kept out from such activities. The first of these, called the Western Ghats Ecology Expert Panel, headed by noted environmentalist **Madhav Gadgil** had recommended that the entire region should be made out of bounds for new industrial activities. The other one, headed by **Kasturirangan**, had suggested that only about 37 per cent of the entire region needed be demarcated into an ESA. State governments and local populations at many of the identified places had resisted the formation of ESA fearing loss of livelihood and a ban on developmental activities.



### Way ahead:

Concerned state governments and other stakeholders have 60 days' time to raise objections or make suggestions on the decision to notify the area as ESA. If no changes have to be made, the notification will become final.

Sources: the hindu.

## Caught between custom and conservation

The custom at Sri Venkateswara temple at Tirumala, of using a fragrance derived from the Small Indian Civet in the deity's worship, faces a challenge as the [Tirumala Tirupati Devasthanams \(TTD\)](#) and the A.P. Forest Department remain at loggerheads on captive breeding of the animal.

### Background:

The civet is caught in a decade-long row over supply of its glandular 'punugu' secretion that weighs less than a gram. The yellow substance from its perineal gland gets encrusted when dry and is ejected when the animal rubs against a hard surface.

The fragrance is used for 'abhishekam' of Lord Venkateswara. The temple has a 'Punugu Ginne Seva' (offering in a vessel), where select devotees can touch the civet pooja vessel. The secretion is mixed with gingelly oil and heated to get an aromatic gel.

### What's the issue?

The tussle started a decade ago, when the TTD was rearing two pairs of civets at its dairy farm in Tirupati. The **animal is in part two, Schedule II of the Wildlife (Protection) Act 1972, that prohibits domestication.** The Forest department seized the civets and registered a case against the TTD, that was later quashed. At a meeting held in November 2006, it was decided that TTD would fund a nocturnal animal house at Sri Venkateswara Zoological Park, to be maintained by the Forest Department.

- However, the TTD insisted that the house be maintained by its own forest unit (led by a Forest Service officer) using its own fund of ₹10 lakh a year, to provide a continuous supply.
- The department filed a charge sheet against TTD and seized the civets in 2008. After a four-year trial, a local court held TTD officials not guilty. Another criminal case was registered in 2013, which was also dismissed.

Sources: [the hindu](#).

## Centre launches survey on Gangetic dolphins

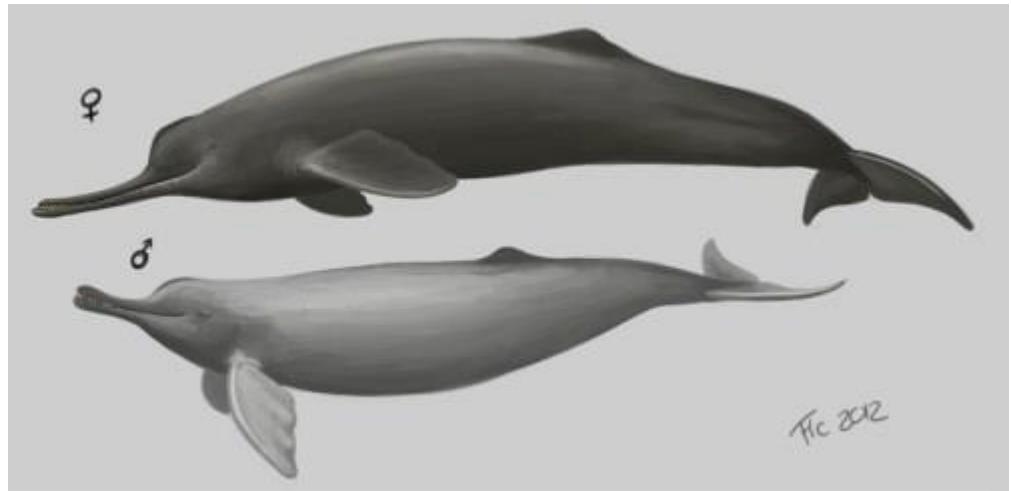
The Centre has launched the first ever across-the-river survey in the Ganga to determine the population of aquatic life, including that of the endangered Gangetic dolphin.

### Key facts:

- The survey will create a baseline scientific data for the government to take suitable measures to improve quality of the river water.
- The first leg of the census was launched on March 1 from Narora in Uttar Pradesh to Bijnor (covering distance of nearly 165 km) to establish the number of the national aquatic animal.
- A study to figure out fish species composition in the 2525 km-long river has been also been kick started from Harshil in Uttarakhand.
- The survey is being conducted through Wildlife Institute of India (WII), an autonomous institution of Environment and Forest Ministry, under Namami Gange programme.
- The study will find out stretches where dolphin is inhabiting, what are the conditions there and the level of threat the long-snouted species is facing in a particular belt.
- Apart from number of dolphins, number of ghariyals and turtles in the river will also be ascertained.
- Besides populace count, the study will help know distribution pattern of aquatic life in the river, extent of threat level they are facing and their habitat conditions.

## About Gangetic Dolphins:

The Ganges River dolphin, or susu, inhabits the Ganges-Brahmaputra-Meghna and Karnaphuli-Sangu river systems of Nepal, India, and Bangladesh. This vast area has been altered by the construction of more than 50 dams and other irrigation-related projects, with dire consequences for the river dolphins. It is classified as endangered by the IUCN.



- This dolphin is among the four “obligate” freshwater dolphins – the other three are the baiji now likely extinct from the Yangtze river in China, the bhulan of the Indus in Pakistan and the boto of the Amazon River in Latin America. Although there are several species of marine dolphins whose ranges include some freshwater habitats, these four species live only in rivers and lakes.
- Being a mammal, the Ganges River dolphin cannot breathe in the water and must surface every 30-120 seconds. Because of the sound it produces when breathing, the animal is popularly referred to as the ‘Susu’.

Sources: the hindu.

## Workshop on Arsenic problem in ground water and its remediation in Ganga Basin held

Workshop on Arsenic problem in ground water and its remediation in Ganga Basin was recently held. It was chaired by Union Minister of Water Resources, River Development and Ganga Rejuvenation Shri Uma Bharti. It was organized by **Central Ground Water Board (CGWB)**.

- There is an urgent need to start a nationwide movement to make people aware about the arsenic problem. The government has underlined the need to make people aware about the negative impact of Arsenic in Ganga basin area. It has also proposed to prepare an exhaustive work plan to meet the challenges posed by presence of arsenic in ground water on the basis of the outcome of this workshop.

### Arsenic in groundwater:

Arsenic in ground water is a **geogenic contaminant** i.e. caused by natural geologic processes. Arsenic-containing groundwater in Ganga River basin is hosted by the sediments deposited by the rivers during the late Quaternary or Holocene age (<12 thousand years). Incidence of high arsenic in groundwater reported from various parts of the country, particularly in the Ganga- plains is a serious threat to the health of human being.

- Over the last three decades numerous measures have been initiated which includes alternate arrangement for supply of arsenic free water to the affected populace and providing arsenic removal plants. Arsenic occurrences in ground water in these areas is highly sporadic in nature and all the sources in these areas are not necessarily contaminated.
- Technological options to combat arsenic menace, in groundwater, to ensure supply of arsenic free water, in the affected areas can be in-situ remediation of arsenic from aquifer system, ex-situ remediation of arsenic from tapped groundwater by arsenic removal technologies, use of surface water source as an alternative to the contaminated groundwater source, tapping alternate safe aquifers for supply of arsenic free groundwater or combination of above techniques.

## **What has the government done in this regard?**

The government is tapping alternate safe aquifers, for supply of arsenic free groundwater in many areas on a local scale; however, this approach would require extensive studies and analysis for mapping of groundwater availability, freshwater reserves and to examine mobilization of arsenic in the aquifer, both on spatial and temporal scale, due to forcing perturbation.

- Under the **National Aquifer mapping programme (NAQUIM)** of CGWB special attention has been given to this aspect and water wells have been constructed tapping arsenic free aquifers using state of the art technology in parts of Ballia and Ghazipur districts of Uttar Pradesh".
- However, the growing arsenic occurrences demands a systematic translation of success stories of one place/region to another and formulating a comprehensive plan to mitigate the arsenic problem through a wider consultation process.

Sources: pib.

## **Jal Kranti Abhiyan**

National conference on Jal Kranti Abhiyan was recently held in Delhi. Participating in the conference representatives from water user associations, NGOs and other agencies gave useful suggestions to make Jal Kranti Abhiyan a success.

- The daylong conference was organized by Ministry of Water Resources, River Development and Ganga Rejuvenation as part of Jal Kranti Abhiyan. About 700 participants representing various stakeholder groups such as farmers, Panchayat members, officials, NGOs and students attended the conference.

### **About Jal Kranti Abhiyan:**

Jal Kranti Abhiyan was launched on June 05, **2015** to **consolidate water conservation and management** in the country through a holistic and integrated approach **involving all stakeholders** making it a mass movement.

- One of the main objectives of the Jal Kranti Abhiyan is "strengthening grass root involvement of all stakeholders including Panchayati Raj institutions and local bodies for Participatory Irrigation Management."
- There are four important components of Jal Kranti Abhiyan viz. **Jal Gram Yojana, Development of Model Command Area, Pollution Abatement and Mass Awareness Programme.**
- Under Jal Gram Yojana two water stressed villages in each district of the country are to be selected and a comprehensive water security plan is formulated to achieve water security for these villages. So far 726 such villages have been identified against the total target of 828. Integrated Water Security Plan for 180 Villages have been prepared and 61 of them have been approved.

Sources: pib.

## **Web Portal for obtaining CRZ Clearances**

The government has launched the web portal for obtaining Coastal Regulation Zone clearances, here today.

### **Key facts:**

- The Portal is a web-based system for obtaining clearances required from the Environment Ministry under the "Coastal Regulation Zone" (CRZ) by the Project proponents.
- The system will enable the Project proponents and the concerned State/Union Territory bodies like the State Coastal Zone Management Authorities (SCZMAs) and Municipal/Town Planning agencies in tracking the status of their proposals.

- The Portal is a very user-friendly initiative, which enables submission of applications for CRZ clearance in a single-window interface and facilitates quick flow of information related to CRZ clearances. The portal allocates a unique identity for each proposal for all future references. It is accessible from any computer with internet facility.
- The objectives of the web portal include – enhancing efficiency, transparency and accountability in the process of CRZ clearances; enhance responsiveness through workflows and availability of real-time information on the status of CRZ clearance proposals; ease of business and convenience of citizens in accessing information and services; standardised procedures and processes across Central and State levels.

### About Coastal Regulation Zone:

Under the **Environmental Protection Act 1986**, notification was issued in 1991 for regulation of activities in the coastal area by Ministry of Environment and Forests. This notification known as Coastal Regulation Zone Notification defined the Coastal Regulation Zone or CRZ as coastal land up to 500m from the High Tide Line and a range of 100m along banks of creeks, estuaries, backwaters and rivers subject to tidal fluctuations is CRZ. According to Coastal Regulation Zone notifications, it is divided into 4 zones:



- CRZ I** – It refers to the ecologically sensitive areas, essential in maintaining ecosystem of the coast. These lie between the HTL and LTL. Only exploration of natural gas and extraction of salt is permitted.
- CRZ II** – These areas form up to the shoreline of the coast. Authorized structures are not allowed to be constructed in this zone.
- CRZ III** – This includes rural and urban localities. Only certain activities relating to agriculture and public utilities allowed here.
- CRZ IV** – This includes the aquatic area up to the territorial limit (12 nautical miles). Fishing and allied activities permitted in this zone. Solid waste can be let off in this zone.

Sources: pib.

### Synchronous elephant count by four States in May

**Four States — Odisha, West Bengal, Chhattisgarh and Jharkhand** — which comprise India's most human-elephant conflict-prone region, have decided to count elephants synchronously between May 9 and 12.

#### Key facts:

- This will be **the first regional synchronous elephant census with an identical set of rules for direct and indirect counting methods**.
- The census has been consciously been **scheduled for May 10, a full moon day on which the chances of elephant sightings are higher**.
- The **direct elephant counting method** is based on sightings of elephants, while in the **indirect method**, surveyors follow a dung decay formula for arriving at a population estimation. Dung decay methods have already been used by Karnataka and Tamil Nadu. A variation of about 8% to 9% has been noticed between the two methods.

- The synchronised census will indicate the size, distribution, structure and density of the elephant population in the region.

## Background:

According to the 2015 census, Odisha has 1,954 elephants, while Jharkhand, Chhattisgarh and West Bengal have approximately 700, 275 and 130 elephants respectively.

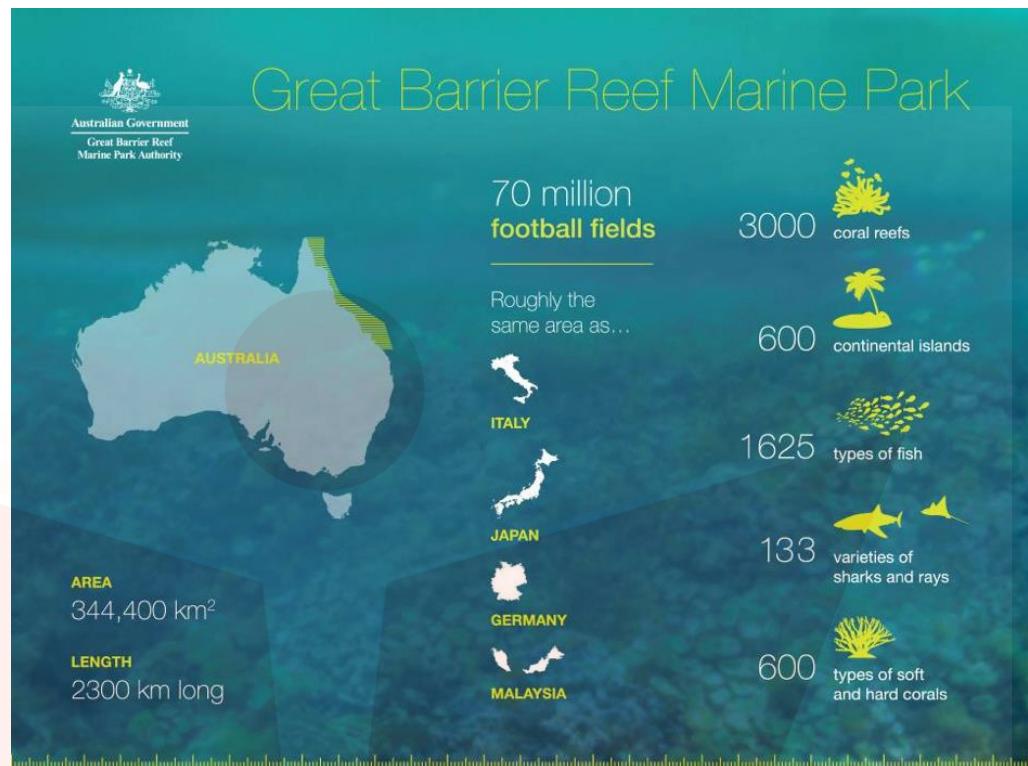
Sources: the hindu.

## A mass coral bleaching again

### Australia's Great Barrier Reef

**Reef** is experiencing an unprecedented second straight year of mass coral bleaching. Scientists have warned many species would struggle to fully recover.

- More bleaching was being observed in the central part of the reef, which last year escaped widespread severe bleaching.
- The latest bleaching has increased the urgency of tackling climate change in Australia, one of the world's worst per capita greenhouse gas polluters.



## Background:

The 2,300-km reef suffered its most severe bleaching on record last year due to warming sea temperatures during March and April. Nearly two-thirds of shallow-water corals in a 700-km stretch of the reef's northern section were lost to last year's bleaching event.

## What is Coral Bleaching?

Bleaching occurs when abnormal environmental conditions, such as warmer sea temperatures, cause corals to expel tiny photosynthetic algae, draining them of their colour. Corals can recover if the water temperature drops and the algae are able to recolonise them.

## Way ahead:

The reef scientists plan to conduct further surveys over the next few weeks to determine the extent and severity of the bleaching.

The latest bleaching has increased the urgency of tackling climate change in Australia, one of the world's worst per capita greenhouse gas polluters. Scientists have warned that without sufficient emissions reductions annual mass bleaching of the Great Barrier Reef by 2050 is possible.

# CORAL BLEACHING

Have you ever wondered how a coral becomes bleached?

## HEALTHY CORAL

- 1 Coral and algae depend on each other to survive.



Corals have a symbiotic relationship with microscopic algae called zooxanthellae that live in their tissues. These algae are the coral's primary food source and give them their color.

## STRESSED CORAL

- 2 If stressed, algae leaves the coral.



When the symbiotic relationship becomes stressed due to increased ocean temperature or pollution, the algae leave the coral's tissue.

## BLEACHED CORAL

- 3 Coral is left bleached and vulnerable.



Without the algae, the coral loses its major source of food, turns white or very pale, and is more susceptible to disease.

## WHAT CAUSES CORAL BLEACHING?



### Change in ocean temperature

Increased ocean temperature caused by climate change is the leading cause of coral bleaching.



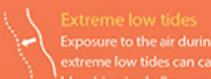
### Runoff and pollution

Storm generated precipitation can rapidly dilute ocean water and runoff can carry pollutants — these can bleach near-shore corals.



### Overexposure to sunlight

When temperatures are high, high solar irradiance contributes to bleaching in shallow-water corals.



### Extreme low tides

Exposure to the air during extreme low tides can cause bleaching in shallow corals.



NOAA's Coral Reef Conservation Program  
<http://coralreef.noaa.gov/>

Sources: the hindu.

## First "Pristine air-quality monitoring station at Palampur"

National Physical Laboratory (NPL) has established an atmospheric monitoring station in the campus of Institute of Himalayan Bioresource Technology (IHBT) at Palampur (H.P.) at an altitude of 1391 m for generating the base data for atmospheric trace species & properties to serve as reference for comparison of polluted atmosphere in India.

### Key facts:

- The station houses calibrated state-of-the-art-equipment for the continuous measurements of ambient and greenhouse gases (CO, NO, NO<sub>2</sub>, NH<sub>3</sub>, SO<sub>2</sub>, O<sub>3</sub>, PM<sub>1</sub>, PM<sub>2.5</sub>, PM<sub>10</sub>, hydrocarbons, black-carbon, CO<sub>2</sub> & CH<sub>4</sub>), and weather parameters.
- Because of Palampur's pristine air, and the capability of the new monitoring station for detection of small amounts of pollutants, the impact of faraway pollution sources can be measured precisely.
- In addition, this new station has the experimental facilities to investigate the aerosol/cloud interactions, and such investigations would be helpful in generating a better understanding of the Earth's climate system.
- The data generated by pristine station at Palampur will act as background data for the measured pollution at various cities in the country. The generated background data will be shared with different pollution control boards and agencies in the country so that the more precise pollution mapping traceable to standard values can be done, which in turn, would assist policy decisions for the abatement of air pollutants.



- In India, air quality parameters are mostly measured in industrial and residential areas, however, data for air quality of pristine atmosphere is not available in India. NPL's station will contribute to fill this important gap. The NPL's station will also serve as a base station for inter-comparison of air quality monitoring equipment being used in India to improve quality of monitored data in India.

Sources: pib.

## Ganga, Yamuna termed 'living persons'

In a first in the country, the **Uttarakhand High Court** has declared that the rivers **Ganga and Yamuna** were "living persons." On March 15, **New Zealand** river **Whanganui** became the first in the world to be granted a legal human status.

### What does this mean?

The Ganga and Yamuna, all their tributaries, streams are declared as juristic or legal persons or living entities having the status of a legal person with all corresponding rights, duties and liabilities of a living person in order to preserve and conserve river Ganga and Yamuna.

- Recognizing the rivers as a living entity grants them new found legal identity and all rights laid out in the Constitution of India.
- The two rivers thus have the right to be legally protected and not be harmed/destroyed. They can also be parties to disputes. The rights, experts say, can be used to protect the interests of the rivers.

### What necessitated this move?

Both the rivers have been in a state of neglect and even though several government initiatives, including the Centre's Namami Gange programme, are aimed at restoring their health, not much has been achieved yet.

Over 1500 million litres of raw sewage is discharged into the Ganga every day. This joins 500 million litres of industrial waste dumped by more than 700 highly polluting industries located along it.

### Way ahead:

The court ordered that the Director of the Namami Gange programme, the Uttarakhand Chief Secretary, and the Advocate-General of Uttarakhand would serve as "parents" for the rivers and would be the human faces to "protect, conserve and preserve" the rivers and their tributaries.

The court has also directed the central government to constitute the Ganga Management Board within eight weeks to look into the issue of cleaning and maintaining the river.

Sources: the hindu.

## WORLD FORESTRY DAY

**World Forestry Day** or **International Day of Forests** is celebrated worldwide every year on **21st of March** at the international level in order to increase the public awareness among communities about the values, significance and contributions of the forests to balance the life cycle on the earth.

Theme for World Forestry Day 2017 is "**Forests & Energy**".

### Background:

The World Forestry Day was established in the year 1971 at the 23rd General Assembly of European Confederation of Agriculture. And it was decided to be celebrated as an annual event celebration on **21st of March** by the **United Nations Food and Agriculture Organization**.

Sources: the hindu.

## World Water Day

**World Water Day** is being observed globally today (**22nd March**). It is to mark the importance of water to human civilisation and nature.

The **United Nations organisation** sets a theme each year. Theme this year: **wastewater**.



World Water Day is part of a global mission to get safer water for all. It's a day for people to learn, get involved and take action.

The United Nations General Assembly designated March 22 as World Water Day in 1993 following a resolution taken in Rio, Brazil in 1992. This is the 24th year, and it's organised by UN Water in collaboration with governments and partners.

Sources: the hindu.

## Sea ice hits record winter low

According to a study conducted by scientists, the sea ice cover in the Arctic and the Antarctic has hit new record lows for this time of year, marking the smallest polar ice caps in the 38-year satellite record.

### What's the issue?

The ice floating in the Arctic Ocean grows and shrinks on a seasonal cycle, reaching its largest size in March and its smallest at the end of the summer melt in September. However, this March the ice cover reached "a record low wintertime maximum extent." This year's Arctic maximum spanned 14.42 million sq.km. That is 95,829 sq.km. below the previous record low in 2015. When scientists take account of the average sea ice extent for 1981-2010, this year's ice cover is 12,19,884 sq.km. smaller. The Arctic sea ice maximum has dropped by an average of 2.8% per decade since 1979.



Besides, sea ice around Antarctica has also hit its lowest extent ever recorded by satellites in the Southern Hemisphere. In the Antarctic, this year's record low annual sea ice minimum was 21,10,840 sq.km. That was 1,83,889 sq.km. below the previous lowest minimum extent in the satellite record, which occurred in 1997.

### Concerns:

The disappearing sea ice comes as the planet has marked three years in a row of record-breaking heat, raising new concerns about the accelerating pace of global warming and the need to curb burning of fossil fuels which spew heat-trapping greenhouse gasses into the atmosphere.

Sources: the hindu.

## Environment Ministry official to chair animal welfare board

The [Animal Welfare Board of India](#) (AWBI), a statutory advisory body under the Union Ministry of Environment, Forests and Climate Change (MoEF), will now be permanently chaired by a senior MoEF official, according to a notification made public by the government.

- The notification specifies that for the next three years, the Board would be chaired by the Director-General (Forests) for its term.

## **Background:**

In its 55-year history the organisation has always been chaired by somebody outside government, such as veterinarians, animal welfare activists or retired judges. This is the first time that a government official is chairing the body.

## **About Animal Welfare Board:**

The Animal Welfare Board of India was established in 1962 under Section 4 of The Prevention of Cruelty to Animals Act, 1960.

- The Board consists of 28 Members, who serve for a period of 3 years.
- The Board was initially within the jurisdiction of the Government of India's Ministry of Food and Agriculture. In 1990, the subject of Prevention of Cruelty to Animals was transferred to the Ministry of Environment and Forests, where it now resides.
- It frames a range of rules on how animals ought to be humanely treated everywhere.

Sources: the hindu.

## **Earth hour**

Earth hour was observed across the globe on **March 25<sup>th</sup>**.

- It was the **tenth anniversary** of the Earth Hour this year.

## **What is it?**

Earth Hour is a worldwide movement for the planet organized by the **World Wide Fund for Nature (WWF)**. The event is held worldwide annually encouraging individuals, communities, households and businesses to turn off their non-essential lights for one hour, from 8:30 to 9:30 p.m. on the last Saturday in March, as a symbol for their commitment to the planet.

## **Background:**

It was famously **started as a lights-off event in Sydney, Australia in 2007**. Since then it has grown to engage more than 7000 cities and towns worldwide. Today, Earth Hour engages a massive mainstream community on a broad range of environmental issues. The one-hour event continues to remain the key driver of the now larger movement.

## **Why do we need earth hour?**

Global warming and climate change have dominated the scientific discourse in the past more than one decade. With ever rising population of the world, the climate change has put the humankind at a great risk along with other species.

- Global warming, rising levels of pollution due to ever increasing industrialisation, declining forest cover and rising sea levels are some of the dangers that drastically affect the workings of life on the earth.
- Though the largest polluters are big industries, the WWF tries to make the masses more and more aware about the impending dangers of adverse climate so that they could put pressure on the respective governments to frame environment-friendly policies and laws.
- With Earth Hour, the WWF aims to engage people across the globe to adopt more sustainable lifestyle. Turning off lights for an hour is just an annual reminder that if the world does not mend its ways, it will be heading to a dark age, literally.

Sources: the hindu.

## Hills sizzle at 8°C above normal

So far, this summer, the **maximum temperature surges were recorded in hill-station favourites Kullu in Himachal Pradesh and Mukteshwar in Uttarakhand** according to IMD. According to figures on the India Meteorological Department (IMD) website, these towns recorded 32°C and 27.2°C — a searing eight degrees above normal for the last week of March.

- Other summer getaways in north India, such as Shimla also in Himachal Pradesh, Pahalgam in Jammu & Kashmir and Dehradun in Uttarakhand have all registered temperatures seven degrees above their historical normals.

### Background:

The IMD had already warned of summer temperatures being **higher than normal in February and “above normal” temperatures in Himachal Pradesh, Uttarakhand, Jammu and Kashmir.**



### Factors behind the high temperature in the North:

The high temperatures in the north are due to a **confluence of weather conditions such dry south-westerly winds from Gujarat blowing to the north and approaching Western Disturbances** (a storm from the Mediterranean that brings rain to north and northwest India). These are coupled with an **anticyclone**, a clockwise spiraling of air that pulls in more warm air flowing in from the south-west.

North India apart, several states — Madhya Pradesh, Maharashtra, Chattisgarh, Orissa, Jharkhand and Rajasthan — recorded severe-heat wave conditions because of the meteorological confluence.

### Background:

Historical data, until 2010, on the IMD website says that Shimla's highest-ever maximum temperature in March was 25.8°C in 2010 and Mukteshwar, 28.5°C in 2004.

### Way ahead:

The stamp of global warming is evident in this year's searing March. When the average temperatures are rising every year, there will be more incidents of extreme temperature. The IMD is already in the process of informing States to put in place comprehensive heat action plans to prepare for the summer.

Sources: the hindu.

**Paper 3 Topic:** Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security; money-laundering and its prevention.

## Law enforcement in the digital era

One consequence of the recent demonetisation was a push towards the digitisation of the economy — a move that will create transparency in the financial system.

But this digital push must be accompanied by greater security of digital transactions to deal with the tsunami of cybercrimes that is bound to follow. India's enforcement mechanisms, laws and policies must be re-examined immediately to ensure that the theft of data or money is dealt with severely, swiftly and transparently.

### Concerns:

A recent ASSOCHAM-PwC study found that cybercrime in India surged almost 300% between 2011 and 2014. The Indian Computer Emergency Response Team (CERT-In), the national agency tasked with maintaining cybersecurity, reported more than 50,000 security incidents in 2015. With the push towards digital transactions, this number will

only grow. As smartphones become the preferred mode of transactions, hacking, phishing and malware based attacks are serious concerns. The Nokia malware report showed a 96% surge in mobile device infections in 2016.

- The logistical burden these incidents will place on law-enforcement the judiciary, will be enormous. Our police infrastructure, which doesn't yet have the capacity to handle existing cybercrimes, will be strained to breaking point in the coming surge.
- Dealing with cyber offences necessarily means upgrading the capabilities of law enforcement, either through new recruitment or by imparting technical training to existing personnel. But this prescription comes with its own problems, not least being the supply of qualified people. If existing personnel are trained rigorously, on the other hand, there is the danger that they will be poached by the private sector.

### **What needs to be done?**

Best option, according to experts, is a Public Private Partnership (PPP) to combat cybercrime. Such a partnership will draw upon the skills in the private sector to train the police, while providing practical experience in dealing with cybercrimes to corporate employees. Such models already exist and are fairly successful. One example is the National Cyber Forensic Training Alliance (NCFTA) in the U.S., a non-profit platform that tackles cybercrime through partnerships with subject matter experts in the public, private, and academic sectors.

- In addition, it is also necessary to reshape our current cybercrime laws to address the likely surge in offences relating to digitisation. Given the borderless nature of cybercrimes, state police agencies need to be able to pursue offenders without worrying about jurisdiction. To allow for this, a pan-India cyber-enforcement force must be considered.
- Such a force can become a one-stop-shop for digital monetary fraud and will go a long way in assuaging the concerns of cyber-fraud victims. Such a force will also be able to identify trends and stop entities that prey on the gullibility of uninformed citizens transitioning to the digital economy.

Sources: the hindu.

## **US regulators reject bitcoin ETF, digital currency plunges**

The US Securities and Exchange Commission on Friday denied a request to list what would have been the first US exchange-traded fund built to track bitcoin, the digital currency.

- The digital currency's price plunged, falling as much as 18% in trading immediately after the decision before rebounding slightly. It last traded down 7.8% to \$1,098.

### **Background:**

Investors have been trying for more than three years to bring the Bitcoin ETF to the market. Bitcoin had scaled to a record of nearly \$1,300 this month, higher than the price of an ounce of gold, as investors speculated that an ETF holding the digital currency could woo people into buying the asset.

### **Why the proposal was rejected?**

Bitcoin presents a new set of risks to investors given its limited adoption, a number of massive cybersecurity breaches affecting bitcoin owners and the lack of consistent treatment of the assets by governments. Markets for bitcoins are also unregulated.

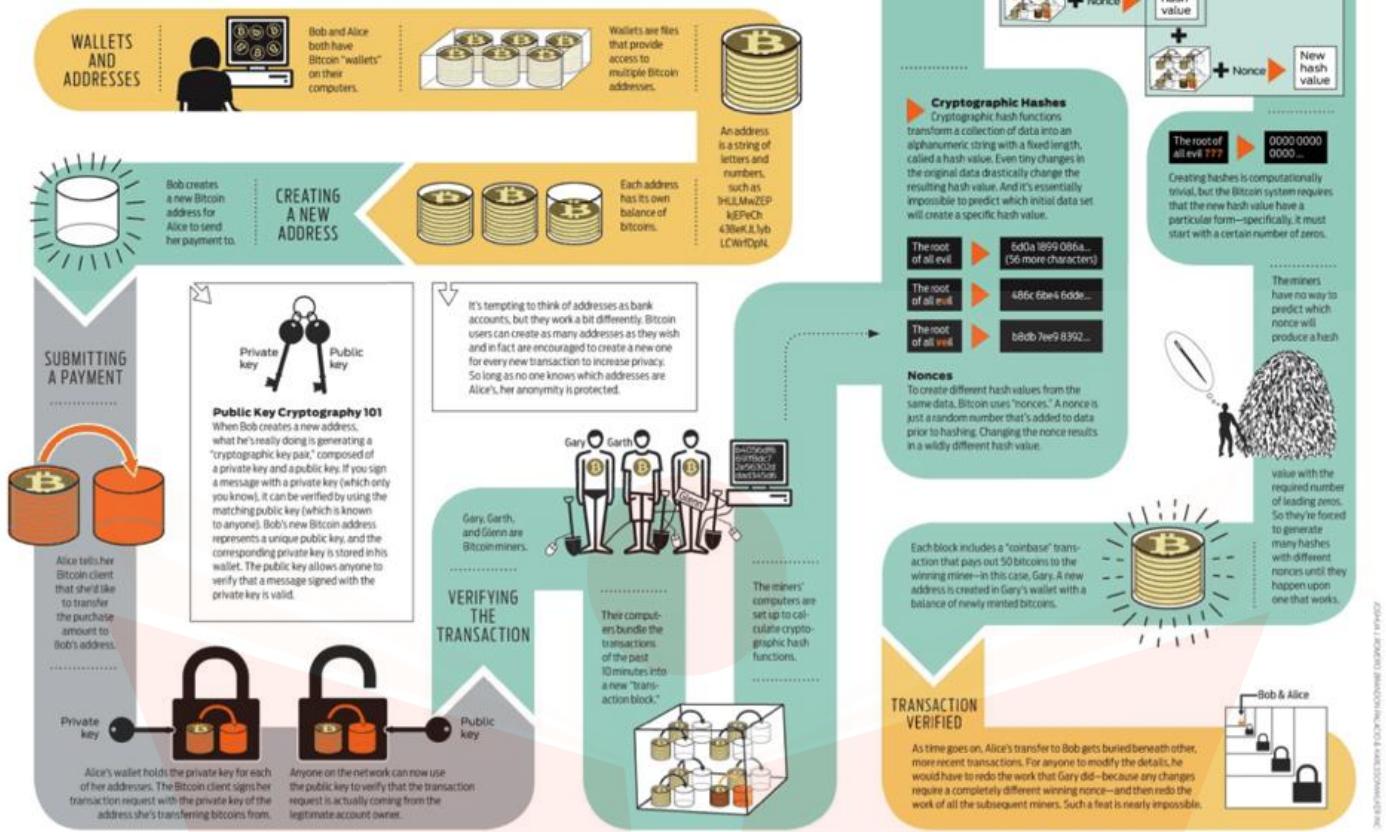
The commission notes that bitcoin is still in the relatively early stages of its development and that, over time, regulated bitcoin-related markets of significant size may develop. The regulators have questions about how the funds would work and whether they could be priced and trade effectively.

### **What is a Bitcoin?**

Bitcoin is a virtual currency that can be used to move money around the world quickly and with relative anonymity, without the need for a central authority, such as a bank or government.

## How a Bitcoin transaction works

Bob, an online merchant, decides to begin accepting bitcoins as payment. Alice, a buyer, has bitcoins and wants to purchase merchandise from Bob.



Sources: et.

## Parliamentary panel fumes as NATGRID posts remain vacant

A parliamentary panel has asked the Home Ministry to re-publicise the vacant NATGRID posts and offer remuneration commensurate with that of the private sector to attract the most qualified professionals.

### Background:

The Union Home Ministry recently informed a parliamentary panel that it couldn't get qualified IT professionals to fill 35 posts in the National Intelligence Grid (NATGRID), an ambitious intelligence project conceptualised by the United Progressive Alliance government after the 26/11 Mumbai terror attacks in 2008.

### What has the committee said?

The committee observed, "In a country like India, known worldwide for its highly skilled IT professionals, it is simply not acceptable that the non-availability of professionals was the reason for not filling the 35 posts of consultants. The Committee feels that either the Ministry had failed to publicise the posts widely or the remuneration being offered was not attractive enough."

### About NATGRID:

NATGRID is an ambitious counter terrorism programme, which will utilise technologies like Big Data and analytics to study and analyse the huge amounts of data from various intelligence and enforcement agencies to help track suspected terrorists and prevent terrorist attacks. It will connect, in different phases, data providing organisations and users besides developing a legal structure through which information can be accessed by the law enforcement agencies.

## **Background:**

NATGRID is a post Mumbai 26/11 attack measure. It aims to mitigate a vital deficiency — lack of real time information, which was considered to be one of the major hurdles in detecting US terror suspect David Headley's movement across the country during his multiple visits between 2006 and 2009.

## **It's role:**

- NATGRID will become a secure centralised database to stream sensitive information from 21 sets of data sources such as banks, credit cards, visa, immigration and train and air travel details, as well as from various intelligence agencies.
- The database would be accessible to authorised persons from 11 agencies on a case-to-case basis, and only for professional investigations into suspected cases of terrorism.

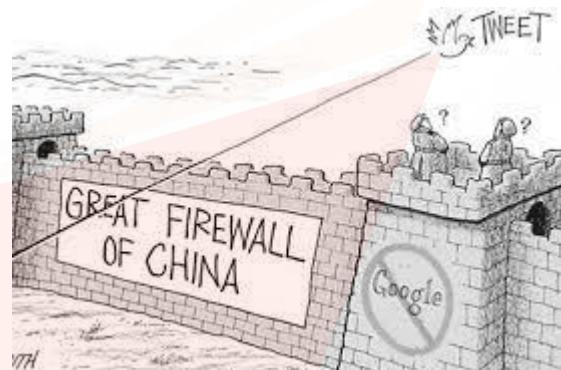
Sources: the hindu.

## **Chinese city announces punishments for VPN users**

Southwest China's **Chongqing Municipality**, the **most populous and also the largest direct-controlled municipality**, has announced a **new regulation to punish unauthorised Internet connections outside China's Great Firewall (GF)** using [VPNs](#) by individuals in the region.

## **Key facts:**

- The new regulation **aims to strengthen China's rule of law and cyberspace security**.
- Under the new rules, if an individual accesses international network privately or via "illegal channels," or offers related services without authorisation, they could be fined up to 15,000 yuan (\$2,178). Those who violate the regulation to make profits would be fined and their gains confiscated accordingly.



## **What is China's Great Firewall?**

The GF is built over the years by China to **regulate the Internet content and restrict access to all the banned contents** including access to global social media sites like Twitter, Facebook, Youtube and Google.

## **What necessitated this move?**

There are 700 million Internet users in China, more than half of its population, and Internet news circulated by social media platforms like Weibo has become more popular than the state-controlled mainstream media making the ruling Communist Party of China (CPC) to **beef up controls on the Internet to ensure that its monopoly over power is not challenged**.

While VPNS are used widely by diplomatic and foreign media in China to access world wide Internet, the **special applications designed to beat the GF being marketed by several Internet firms abroad are becoming popular among Chinese too**.

Also, China pitches for "**cyber sovereignty**" moving away from global Internet.

Sources: et.



## **INSIGHTS TEST SERIES FOR UPSC PRELIMINARY EXAM 2017 (GS PAPER-1)**

### **HIGHLIGHTS**

- NCERT and other Standard Books based highly conceptual Tests for General Studies Paper - 1
- Emphasis on **Self Study** by providing practical Timetable for whole year that can be followed on a regular basis
- 32 Full Length Tests Each with 100 High Quality Questions
- Focus on enabling you to get 130+ score in Paper - 1
- Analysis of your Performance in different categories after Each Test
- All India Ranking of Individual and Cumulative Tests
- Duration of test series is for one year. Date of your ranking and performance in tests will be removed before the beginning of 2018 Test Series.
- Revision Tests to allow time for regular revision

### **ADVANTAGES**

- High quality 32 Full Length Tests widely acclaimed for their quality questions and right approach to preparing for UPSC civil services Preliminary exam (General Studies Paper -1)
- Detailed solutions to each question with exhaustive explanations make Insights tests unique.
- Wide coverage of all authentic and primary sources which UPSC is fond of sourcing questions for its exams.
- We take it very serious to focus more on concepts rather than on facts. Questions will help you build your concepts from scratch.
- You will fall in love with NCERT books and find them more important than any other sources once you start solving our tests. You will know when you solve our first few tests.
- Questions are framed from standard books and online sources which are recommended by every topper, every year.
- A detailed Study Plan comes with a Timetable to follow on regular basis to prepare for and solve each test.
- All India Ranking will help in assessing your preparation levels.
- Insights has a following of very serious aspirants who are highly motivated and motivate you to be consistent all through the journey.
- Students who subscribed our test series last year have done exceptionally well in Prelims - 2015 and 2016. If you solve all our tests, be sure of clearing Prelims hurdle.

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## Facts for Prelims

### Al Nagah-II 2017

- The armies of India and Oman are scheduled to conduct their second bilateral exercise, Al Nagah-II 2017, in March with a focus on counter-terrorism.
- The aim of the exercise is to build and promote bilateral Army-to-Army relations and enhance interoperability while exchanging skills and experiences between the Indian Army and the Royal Army of Oman.
- The navies of the two countries have been holding the bilateral maritime exercises called ‘Naseem Al Bahr’ since 1993.

### Regional conference on enhancing steel consumption in India

- Maiden regional conference of Eastern States on enhancing steel consumption in India will be held in Gangtok, Sikkim.
- The theme is ‘Enhancing steel consumption in India’.
- This will be first of the four regional conferences being planned across India.
- The delegates in the conference would deliberate on measures to increase steel demand, advantages of steel intensive construction & steel in high-rises, rural sector, bridges and other fields.
- The occasion would provide a unique platform for exchange of user perspective and producers response.
- The delegates in the conference would include decision makers in projects in central and state Governments, architects, structural designers and consultants, project financers, contractors, fabricators, erectors, Faculties from Metallurgy, Mechanical and Civil Engineering departments, representatives from large infrastructure industry, steel/engineers/architect associations.

### India's WTO ambassador

- **S. Deepak** has been appointed as country’s permanent representative to World Trade Organization (WTO).
- The appointment order has been issued by the Appointments Committee of the Cabinet (ACC) headed by the Prime Minister.

### #WeAreEqual

- Leading up to **International Women’s Day on March 8, 2017**, the Ministry of Women and Child Development has initiated a social media campaign – #WeAreEqual – targeted at raising awareness about gender discrimination.
- The campaign will culminate into the celebration of International Women’s Day marked by the prestigious Nari Shakti Award ceremony, in which the Hon’ble President will honour individuals and institutions for their exemplary contribution to women’s empowerment.
- The campaign takes a positive approach, engaging both men and women across the cross-section of the society and reflects their personal effort at creating a more equal society.
- Many prominent personalities have also joined the campaign.

### India to train Myanmar Navy

- Indian Navy will set up meteorological facilities and impart training for the Myanmar Navy. This was agreed upon during a recent visit of a Myanmar delegation to Kochi. Myanmar will soon send a proposal with its requirements.
- This fits into India’s overall effort to boost strategic cooperation under the ‘Act East’ policy and will help offset increasing Chinese presence in its neighbourhood.

## **FOIN 2017 | Al Nagah-II 2017 | National Awards for Innovation in Educational Administration**

### **FOIN 2017:**

- 3<sup>rd</sup> Festival of Innovation (FOIN) was recently held in President's house.
- The Festival of Innovation (FOIN) is a unique initiative of the Office of the President of India to recognise, respect and reward grassroots innovations and foster a supportive ecosystem. Hosted in the month of March at The President's House, the FOIN has become a national celebration of creativity and innovation at and for grassroots.
- In sync with the policies of the government of India, FOIN will provide a window to the creative and innovative solutions for social development through grassroots innovations, student ideas and other technologies for agriculture, rural development, sanitation, health, women and child development, biotechnology and medical innovation for grassroots.

### **Al Nagah-II 2017:**

- Second edition of the joint exercise between the Indian and Oman Armies has begun with the Opening Ceremony at Bakloh, Himachal Pradesh. The previous edition of the Exercise was held at Muscat, Oman in 2015.
- The aim of this exercise is to acquaint both forces with each other's operating procedures, improve the interoperability in conducting joint operations in the backdrop of counter insurgency/ counter terrorism environment as also to enhance the existing military relationship between the Indian Army and the Royal Army of Oman.

### **National Awards for Innovation in Educational Administration:**

- The National Awards for Innovation in Educational Administration were recently presented to the participants in New Delhi.
- The Awards have been instituted by the National University of Educational Planning and Administration (NUEPA), New Delhi.
- The main objective of the programme is to recognize innovative ideas and practices adopted by district and block level education officers for effective management of the educational administrative system at district and block levels, and ensuring institutional development and performance at school level.

## **Surya Kiran – XI | PAU develops country's first Bt cotton varieties | IISc among world's best 10 varsities**

### **Surya Kiran – XI:**

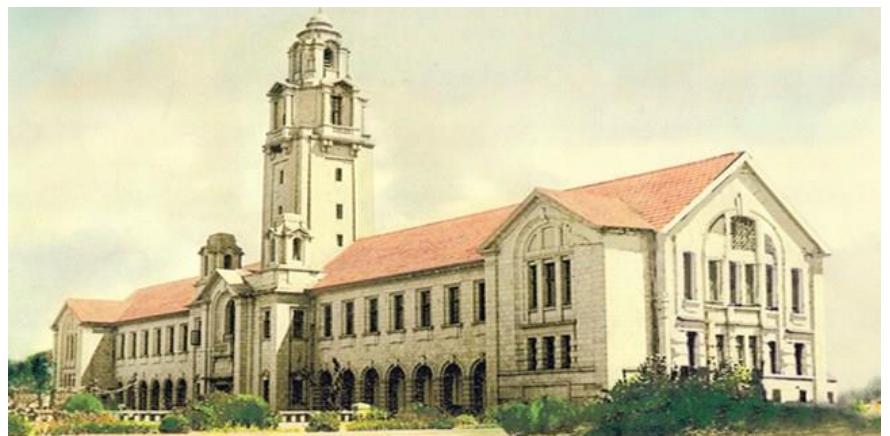
- **Indo – Nepal Joint Military Exercise** Surya Kiran – XI has commenced at Pithoragarh.
- In this 14 days exercise, Nepal Army is being represented by the officers and troops of the elite DURGA BAKSH Battalion while the EKTA SHAKTI Battalion of The Punjab Regiment is participating on behalf of the Indian Army.
- This is eleventh such battalion level exercise between the two countries aimed at training of troops in counter insurgency operations in mountainous terrain.
- It formally incorporates issues related to humanitarian assistance and disaster management (HADR) and will help enhance defence co-operation and military relations between the two countries.

### **PAU develops country's first Bt cotton varieties:**

- Punjab Agricultural University has successfully developed the country's first Bt cotton varieties.
- The ICAR has identified three varieties, namely PAU Bt 1, F1861 and RS 2013, for cultivation in Punjab, Haryana, Rajasthan. It is a cheaper alternative to Bt cotton hybrid seed.

### **IISc among world's best 10 varsities:**

- The Indian Institute of Science (IISc.) has been ranked in the top 10 of Times Higher Education's (THE) Best Small Universities-2017 global rankings that looks only at universities with fewer than 5,000 students.
- At rank 8, IISc. is the only Indian university in the list of 20, and is also the second-highest ranked Asian University.
- The list is topped by California Institute of Technology (Caltech). In the world university ranking, however, it sits in the range of 201-250 when compared with larger universities also.
- IISc, a public university for scientific research and higher education, was established in 1909 with active support from Jamsetji Tata and Sir Krishnaraja Wodeyar IV, the Maharaja of Mysore.
- In 2015-16, it became the first Indian institute to be ranked among the top 100 in THE World University Rankings for engineering and technology at 99th position.
- The Times Higher Education World University Rankings was founded in 2004 by the U.K.-based Times Higher Education (THE) magazine. It provides the definitive list of the world's best universities, evaluated across teaching, research, international outlook, reputation and more.



### **INS Tillanchang | RV Sindhu Sankalp completes 100 expeditions**

#### **INS Tillanchang commissioned at Karwar:**

- INS Tillanchang, a Water Jet Fast Attack Craft (WJFAC) was recently commissioned into the Indian Navy.
- INS Tillanchang is the third ship of four follow-on WJFAC built by the Garden Reach Shipbuilders and Engineers (GRSE) Kolkata. The first two ships of the class, IN ships Tarmugli and Tihayu were commissioned in 2016 and are based at Visakhapatnam.
- The ship has been indigenously designed and built and is an upgrade from the Chetlat class of Fast Attack Craft that the Indian Navy possesses.
- INS Tillanchang is about 50 m long and powered by three waterjet propulsion system, which give it speeds of over 35 knots. The ship is armed with a 30 mm main gun and a number of light, medium and heavy machine guns to undertake operations at sea.
- It is an ideal platform for a number of missions like Coastal and Off-shore Surveillance, EEZ Control, Law Enforcement as well as non-military missions such as Search and Rescue, Humanitarian Assistance and Disaster Relief.
- INS Tillanchang will be based at Karwar under the operational control of the Flag Officer Commanding, Karnataka Naval Area.

#### **RV Sindhu Sankalp completes 100 expeditions:**

- Research Vessel (RV) Sindhu Sankalp, the flagship research vessel of CSIR- National Institute of Oceanography (NIO), has completed 100 expeditions.
- The vessel, which was originally built as fishing training vessel ( FV Chisio Maru ) by the Japanese Government in 1989, was procured by NIO from Japan in 2008.
- The vessel sailed across Bay of Bengal, Andaman Seas and Arabian Sea and has provided invaluable data and samples to understand the ocean processes and mapping of sea floor and water column variables.

- Equipped with CTD system, multi-beam bathymetric system, echo-sounder and sub-bottom profiler, RV Sindhu Sankalp played a key role in conducting seabed geophysical and environmental surveys in KG Basin.

## Pak. to begin first census in 19 years | NTPC installs India's largest floating solar PV plant | Bangladesh declares March 25 as 'Genocide Day'

### Pak. to begin first census in 19 years:

- Pakistan is all set to conduct its first census in almost two decades.
- Pakistan is the sixth most populous country in the world, with an estimated 200 million people, but has not held a census since 1998, despite a constitutional requirement for one every decade.

### NTPC installs India's largest floating solar PV plant:

- NTPC has installed **India's largest floating solar photovoltaic (PV) plant** at Rajiv Gandhi Combined Cycle Power Plant (RGCCPP) at **Kayamkulam** in Kerala.
- It is a 100 kWp (kilowatt peak) floating solar PV plant, the largest of its kind in India as on date, indigenously developed as a part of 'Make In India' initiative.
- This floating platform has been indigenously developed by **NETRA** (NTPC Energy Technology Research Alliance), the R&D arm of NTPC, in collaboration with Central Institute of Plastic Engineering & Technology (CIPET), Chennai and patent has been applied.
- Such systems are fast emerging as an alternative to conventional ground mounted PV systems which are land intensive. It has various benefits like conserving water through reduction of evaporation, increased generation due to cooling effect on the panels, reduced installation time etc and could be installed on saline water environment.

### Bangladesh declares March 25 as 'Genocide Day':

- Bangladesh's unanimously adopted a resolution declaring March 25 as Genocide Day, in remembrance of the atrocities carried out by the Pakistani Army in the night of March 25, 1971.
- '**Operation Searchlight**' began in the first hours of March 25 in Dhaka.
- The Pakistan Army swooped on unarmed civilians on the night of March 25, 1971, to crush the Bengali rebellion following refusal by the military leadership to accept the election results of 1970 in which the Awami League got thumping majority.

## Krishi Unnati Mela 2017 | World's first fluorescent frog

### Krishi Unnati Mela 2017:

- Indian Agricultural Research Institute (IARI) every year has been organising Krishi Vigyan Mela(Agriculture Science Fair) to display and popularise the latest advancement in agricultural research and technology development among farmers and end users since 1972.
- It continues to be a highly important annual event for receiving feedback from the farming community, which helps in deciding the Institute's future research strategy. Thousands of farmers and visitors from across the country are participating in the mela every year.
- This year KrishiUnnatiMela 2017 is being organised jointly by ICAR and Ministry of Agriculture & Farmers Welfare.

### **World's first fluorescent frog:**

- The world's first fluorescent frog, which glows bright green under UV light, has been found in Argentina. The tree-frog was discovered in the Amazon basin in Argentina. In daylight it appears to have brown-green skin with red dots.
- The frog is a dull green/brown with red spots in normal light but the researchers were surprised to find that it gleamed with fluorescent light under their UV torches.
- Fluorescent skin pigments absorb light at short wavelengths and re-emit it at longer wavelengths.
- They are uncommon in animals that live on land, but can be found in some underwater creatures such as certain species jellyfish and anglerfish.
- The glowing frog was found to fluoresce using both lymph and glandular secretions.
- The chemical that gives the frog its greenish glow had never been found in vertebrates before.
- They can project up to 18% as much visible light as a full moon. This depended on the level of ambient light in its environment.



### **India hosts world's oldest algae fossil:**

- Scientists in India have uncovered a pair of 1.6 billion-year-old fossils that appear to contain red algae, which may be the oldest plant-like life discovered on Earth. Until now, the oldest known red algae was 1.2 billion years old.
- The fossils were discovered in sedimentary rocks at Chitrakoot in central India.

### **J&K gets India's longest road tunnel:**

- India's longest road tunnel connecting Chenani and Nashri in Jammu and Kashmir will shortly be opened.
- This engineering marvel is being called the '**Tunnel of Hope**' in Kashmir.
- The structure ensuring all-weather connectivity will reduce the distance between Jammu and Kashmir by 38 km.
- It has taken nearly six years for the project's completion, since the work started in May 2011 in the lower Himalayan mountain range.

### **Global Millennium Summit**

- The two-day Global Millennium Summit organised by the Shri Ram College of Commerce was recently held in Dubai.
- The theme of the summit is '**Future of this Millennium**'.
- The Global Millennium Summit is the first-of-its-kind initiative taken by students of Shri Ram College of Commerce, University of Delhi in association with the Office of International Programmes, SRCC.
- The Summit aims to provide the youth across the world with a platform to discuss, act and interact.
- The Summit witnessed students from the world's leading universities and notable leaders from the fields of governance, business, technology and academia.

### **World poetry day**

World Poetry Day is on 21 March, and was declared by UNESCO (the United Nations Educational, Scientific and Cultural Organization) in 1999. The purpose of the day is to promote the reading, writing, publishing and teaching of poetry

throughout the world and, as the UNESCO session declaring the day says, to “give fresh recognition and impetus to national, regional and international poetry movements”.

## American Hindu Coalition (AHC)

- It is a new organisation launched by a group of influential American Hindus, most of them of Indian descent. It aspires to emerge as the political platform for all Hindus in the country regardless of their ethnic origin.
- The American Hindu Coalition (AHC) will be formally inaugurated in May but the group has launched a website and started raising funds online and from selected donors.
- Primary aim of AHC is to represent Hindus in America who are U.S citizens, not all of them from India.

## World TB Day 2017

- World TB Day, falling on March 24th each year, is designed to build public awareness that tuberculosis today remains an epidemic in much of the world, causing the deaths of nearly one-and-a-half million people each year, mostly in developing countries.
- It commemorates the day in 1882 when Dr Robert Koch astounded the scientific community by announcing that he had discovered the cause of tuberculosis, the TB bacillus. Koch's discovery opened the way towards diagnosing and curing TB.
- The theme of World TB Day 2017 is “**Unite to End TB.**”

## World Conference on Environment | India to redefine blindness to meet WHO stipulation

### World Conference on Environment:

- The President of India, Shri Pranab Mukherjee recently inaugurated the ‘World Conference on Environment’.
- The conference is being held **under the aegis of the United Nations Environment Programme in collaboration with Ministry of Environment and Forests and Ministry of Water Resources.**
- The conference aims to provide a new dimension to the environmental jurisprudence from a world perspective.
- This is for the first time that UNEP is holding a conference in India in which around 55 delegates from 30 countries especially South Asian countries will participate.

### India to redefine blindness to meet WHO stipulation:

- The government is set to change a four-decade-old definition of blindness to bring it in line with the WHO criteria and ensure the Indian data on blindness meets the global estimates.
- As defined under the **National Programme for Control of Blindness (NPCB), a person unable to count fingers from a distance of six metres is categorised as “blind” in India.**
- WHO's stipulation is **three metres.**

## World Winter Games 2017 | China nominates Tai Chi for UNESCO list | Cyclone Debbie

### World Winter Games 2017:

- World Winter Games 2017, also known as Special Olympics, was held in Austria. Austria, in 1993, became the first country outside the US to host the Special Olympics World Winter Games.
- **What is the Special Olympics?** The Special Olympics comprise a group of athletic competitions for children and adults with intellectual disabilities. The competition is held every two years, alternating between the Special Olympics World Summer Games and the Special Olympics World Winter Games.

- **Participating Athletes:** Only those who are over eight years of age are allowed to participate. A competitor needs to be identified by an agency or professional as having one of the following conditions: intellectual disabilities, cognitive delays as measured by formal assessment, or significant learning or vocational problems due to cognitive delay that require or have required specially designed instruction.
- **Background:** The Special Olympics are the brainchild of Eunice Kennedy Shriver, who is the sister of former US president John F Kennedy. Shriver had organised informal sports events in her backyard in an effort to bring joy and a sense of belonging to those with intellectual disabilities for many years before she held the first Special Olympics World Games in 1968 in Chicago, where around 1,000 athletes from the US and Canada participated.
- **Performance of India:** India finished its campaign at the Special Olympics World Winter Games in Austria with a total of 73 medals, which included 37 gold medals, 10 silvers and 26 bronze.

#### **China nominates Tai Chi for UNESCO list:**

China has nominated **Tai Chi**, a form of ancient **martial art**, for inclusion in the UNESCO List of Intangible Cultural Heritage.

#### **Cyclone Debbie:**

A powerful cyclone- **Debbie**- has pummelled the **north-east Australian coast**, causing major damage, torrential rain and power cuts to tens of thousands of homes.

### **INLCU L51 | Mining banned for four months in Uttarakhand**

#### **INLCU L51:**

- INLCU L51 was commissioned recently into the Indian Navy.
- It is **First of the Eight ships of the LCU Mk IV Class**.
- It has been built by M/s Garden Reach Ship Builders & Engineers Ltd, Kolkata.
- The ship has been built to assist in **amphibious operations** by carrying out beaching operations and has an endurance of 1500 nm.
- The ship will also play a key role in carrying out **maritime surveillance** of Andaman & Nicobar Islands for preventing anti-poaching, illegal fishing, drug trafficking, human trafficking, poaching and other illegal activities.
- It will also enhance the capabilities of the Andaman and Nicobar Command in **Humanitarian Assistance and Disaster Relief (HADR) operations**.

#### **Mining banned for four months in Uttarakhand:**

- The Uttarakhand High Court has ordered ‘complete’ ban on mining activities in the State for four months.
- The court has ordered that a high-power committee be constituted to assess the expanse of river bed mining in the State and submit a report. The committee has been directed to submit a report within four months.

### **Haryana government to set up Centre for flowers in Jhajjar to promote floriculture | New secure pound coin goes into circulation in UK**

#### **Haryana government to set up Centre for flowers in Jhajjar to promote floriculture:**

A **Centre of Excellence for Flowers** is being set up with the assistance of Netherlands in district Jhajjar of Haryana to encourage the farmers to take up floriculture.

#### **New secure pound coin goes into circulation in UK:**

- A new **12-sided one-pound coin** described by the **UK’s Royal Mint** as the “**most secure coin in the world**” has been put into circulation across the UK.
- There is material inside the coin itself which can be detected when electronically scanned by coin-counting or payment machines, making it impossible to counterfeit.

- Other security features of the coin include an image that works like a hologram and micro-sized lettering inside both rims.

## SAW (single actuator wave-like robot)

- It is a tiny, ingestible 3D-printed snake-like robot that can navigate through the small intestines, and could one day be used to visualise the digestive system in real time.
- The robot moves in a wave-like motion and can travel through the extremely squishy environment of the small intestine.
- The external shape of the robot is a 2D projection of a rotating helix. The result is a continuously moving wave.
- The direction of the robot can be reversed by reversing the direction of rotation of the motor.

## Kanha tiger reserve becomes first in India get official mascot

- Kanha has become the **first tiger reserve in India to officially introduce a mascot** — **Bhoorsingh the Barasingha** — to present the hard ground swamp deer as the spirit of the reserve and spread awareness to save it from possible extinction.
- **Barasingha, or swamp deer**, is the **state animal of Madhya Pradesh**. The Kanha tiger reserve, spread over Mandla and Balaghat districts, is the **only place in the world where the species exists**.

