



Daily current affairs

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Human Capital Index (HCI)

Why in News?

The World Bank released today a Human Capital Index (HCI) as part of the World Development Report 2019.

Highlights

- Broader theme of the World Development Report (WDR) this year is “**The Changing Nature of Work**”.
- As part of this report, the World Bank has launched a **Human Capital Project (HCP)**. The HCP programme is claimed to be a program of advocacy, measurement, and analytical work to raise awareness and increase demand for interventions to build human capital.
- There are **three components** of HCP-
 - A cross-country human capital measurement metric called the Human Capital Index (HCI).
 - A programme of measurement and research to inform policy action.
 - A programme of support for country strategies to accelerate investment in human capital.

What are the components of HCI and what are its uses?



HCI has three components:

1. **Survival**, as measured by under-5 mortality rates;
2. Expected years of Quality-Adjusted School which combines information on the quantity and quality of education
3. Health environment using two proxies of (a) adult survival rates and (b) the rate of stunting for children under age 5.

Uses

- The HCI has been constructed for 157 countries.

- It claims to seek to measure the amount of human capital that a child born today can expect to attain by age 18.
- The HCI index values are contended to convey the productivity of the next generation of workers, compared to a benchmark of complete standard education and full health.

Comparison of HCI with HDI by UNDP

- **UNDP constructs Human Development Index (HDI)** for several years.
- The HCI uses **survival rates and stunting rate instead of life expectancy** as measure of health, and quality-adjusted learning instead of merely years of schooling as measure of education.
- HCI also **excludes per capita income** whereas the HDI uses it.
- **Two significant changes from HDI are exclusion of income component and introduction of quality adjustment in learning.**
- Exclusion of income element and introduction of quality adjustment makes **HCI far less representative of Human Capital Development** than the Index claims it to be.

Observation in India perspective:

- The key observations regarding HCI for India in the Report are as under:
- Human Capital Index: A child born in India today will be only 44 per cent as productive when she grows up as she could be if she enjoyed complete education and full health.
- The HCI in India for females is marginally better than that for males.
- Further, there has been marked improvement in the HCI components in India over the last five years.
- Probability of Survival to Age 5: 96 out of 100 children born in India survive to age 5.
- Expected Years of School: In India, a child who starts school at age 4 can expect to complete 10.2 years of school by her 18th birthday.
- Harmonized Test Scores: Students in India score 355 on a scale where 625 represents advanced attainment and 300 represents minimum attainment.
- Learning-adjusted Years of School: Factoring in what children actually learn, expected years of school is only 5.8 years.
- Adult Survival Rate: Across India, 83 per cent of 15-year olds will survive until age 60.
- Healthy Growth (Not Stunted Rate): 62 out of 100 children are not stunted. 38 out of 100 children are stunted, and so at risk of cognitive and physical limitations that can last a lifetime.
- Gender Differences: In India, HCI for girls is marginally higher than for boys.

National Company Law Tribunal

Why in News?

In a likely blow to the government and the newly constituted board of Infrastructure Leasing & Financial Services (IL&FS), the Mumbai NCLT Bench rejected the plea of a three-month moratorium against any legal proceedings by any party against the stressed infrastructure financier and its 348 subsidiaries.

About

- The Central Government has constituted National Company Law Tribunal (NCLT) under section 408 of the **Companies Act, 2013**.
- The National Company Law Tribunal NCLT is a **quasi-judicial body**, exercising equitable jurisdiction, which was earlier being exercised by the High Court or the Central Government.
- The Tribunal has powers to regulate its own procedures.
- The establishment of the National Company Law Tribunal (NCLT) consolidates the corporate jurisdiction of the following authorities:

1. Company Law Board
2. The Appellate Authority for Industrial and Financial Reconstruction.
3. Board for Industrial and Financial Reconstruction.
4. Jurisdiction and powers relating to winding up restructuring and other such provisions, vested in the High Courts.

What is IL&FS?

Infrastructure Leasing & Financial Services Limited (IL&FS) is an **Indian infrastructure development and finance company**. Its projects includes some of the largest infrastructure projects in India including India's longest tunnel, **Chenani-Nashri Tunnel**, which was opened for traffic in April 2017.

How was it formed?

- IL&FS was formed in 1987 as an "RBI registered Core Investment Company" by three financial institutions, namely the **Central Bank of India, Housing Development Finance Corporation (HDFC) and Unit Trust of India (UTI)**, to provide finance and loans for major infrastructure projects.
 - Gradually, as the organization needed better financing, it additionally opened itself to two large international players, namely Mitsubishi (through Orix corporation Japan) and the Abu Dhabi Investment authority.
 - Subsequently, Life Insurance Corporation India, Orix and ADIA became its largest shareholders, a pattern that continues to this day.
 - **Currently, its institutional shareholders include Life Insurance Corporation of India (LIC), ORIX and Abu Dhabi Investment Authority, with small shareholdings by a few Indian banks.**
 - State Bank of India (SBI) was a share holder till 2017, after which it sold its stake in the company.
 - A few foreign investors including Greenspring associates remain investors in its subsidiary companies, especially IL&FS transportation and IL&FS infrastructure services.
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Earth's Magnetic Field

Why in News?

Researchers used deep neural networks to detect magnetic field anomalies for faster warnings before earthquakes, tsunamis

What is it?



- Earth's magnetic field, also known as the geomagnetic field, is the magnetic field that extends from the **Earth's interior out into space**, where it meets the solar wind, a stream of charged particles emanating from the Sun.
- It is the field of a magnetic dipole currently **tilted at an angle of about 11 degrees** with respect to Earth's rotational axis, as if there were a bar magnet placed at that angle at the center of the Earth.

How is it generated and does it vary?

- The magnetic field is generated by electric currents due to the motion of convection currents of molten iron in the Earth's outer core driven by heat escaping from the core, a natural process called a **geodynamo**.

Yes, they vary and can switch direction at irregular intervals

- While the **North and South magnetic poles are usually located near the geographic poles**, they can wander widely over geological time scales, but sufficiently slowly for ordinary compasses to remain useful for navigation.
- However, at irregular intervals averaging several hundred thousand years, the Earth's field reverses and the **North and South Magnetic Poles relatively abruptly switch places**.
- These **reversals of the geomagnetic poles leave a record in rocks** that are of value to paleomagnetists in calculating geomagnetic fields in the past.
- Such information in turn is helpful in studying the motions of continents and ocean floors in the process of **plate tectonics**.

How can this property be helpful in Disaster Prediction?

Earthquakes and tsunamis are accompanied by localised **changes in the geomagnetic field**.

- **For earthquakes**, it is primarily what is known as a **piezo-magnetic effect**, where the release of a massive amount of accumulated stress along a fault causes local changes in geomagnetic field.
- **For tsunamis**, it is the sudden, vast movement of the sea that causes **variations in atmospheric pressure**. This in turn **affects the ionosphere**, subsequently changing the geomagnetic field.

Both can be detected by a network of observation points at various locations. The major benefit

of such an approach is speed; remembering that **electromagnetic waves travel at the speed of light, we can instantaneously detect the incidence of an event by observing changes in geomagnetic field.**

National Environment Survey

Why in News?

India's first ever National Environment Survey (NES) will be kicked off from 55 districts across 24 states and three Union Territories in January, 2019. National Environment Survey is proposed under the ongoing **Environmental Information System (ENVIS) Scheme** of the ministry.

About

- The Environmental Information System (ENVIS) will conduct the survey through its hubs and resource partners across the country.
- The survey will be done through a grid-based approach, using grids measuring 9×9 km.
- The earliest the first set of complete green data from the survey will be available is 2020, providing an important tool in the hands of policy-makers for decision making at all levels - district, state and national.
- It will collect comprehensive data on various environmental parameters such as air, water, soil quality; emission inventory; solid, hazardous and e-waste; forest & wildlife; flora & fauna; wetlands, lakes, rivers and other water bodies.
- The NES will rank all the districts on their environmental performance and document their best green practices.
- It will also assess carbon sequestration potential of all the districts across the country.

What is ENVIS scheme?

- The **Ministry of Environment, Forest & Climate Change (MoEF&CC)** has implemented a Central Sector Scheme entitled Environmental Information System (ENVIS), with the purposes of **collection, collation, storage, retrieval and dissemination of information** relating to a variety of themes associated with Environment Sector.
- Its **purpose** is to **integrate country-wide efforts in environmental information collection, collation, storage, retrieval and dissemination** to all concerned.
- ENVIS, by providing scientific, technical and semi-technical information on various environmental issues, **serves as the backbone of policy formulation and environment management at all levels of Government** as well as decision-making aimed at environmental protection and its improvement for sustaining good quality of life of all living beings.
- Its major users also include **institutes and individual scientists carrying out research projects** and **agencies carrying out environmental impact assessment of projects as well as public.**

Forest Fire

Why in News?

The collection of **Non Timber Forest Produce (NTFP) by forest communities** is one of the reasons for **forest fires**, according to a report recently released by the Union Environment Minister. **The report** titled, **Strengthening Forest Fire Management in India** was prepared jointly by the **Ministry of Environment, Forest and Climate Change and the World Bank**.

About the Report:

- The collection of non-timber forest products (NTFPs) was reported as another main cause of fire.
- Officers in five states identified the process of obtaining NTFPs as the most common cause of forest fires: **Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha, and Telangana**.
- Officers in these states and others pointed to a diverse array of NTFPs obtained with the aid of fire, says the report.
- Forest department's interventions such as tendu leaf operations have caused forest fires in Odisha and other states.
- There are also examples where recognition and ownership rights under FRA have increased community efforts and reduced incidents of forest fires as reported from Mayurbhanj and Kandhamal in Odisha

What are the patterns and factors of Forest Fire in India?

- Forest fires have distinct regional patterns and 20 districts (not the same ones) account for 47 per cent of fire distribution.
- The report also pointed out that forest fires are caused by a combination of natural and social factors.
- It discusses policies on forest fire prevention and management and underscores the need to put more emphasis on better fire prevention practices and a well-equipped and trained workforce to fight fires.
- There is an urgent need to fill vacancies for field staff, particularly in fire-prone areas, and to make adequate and reliable funding available.

What the report suggests?

- Recommendations to curb forest fires included
 - Developing a National Forest Fire Prevention Management Plan as an open, consultative and a time-bound process,
 - Standard management practices,
 - Adapt technology to local conditions,
 - Scaling up the best practices and increasing engagement with local communities to ensure that big fire is used in a responsible way and at the same time,
 - Give communities a greater say in decision-making process.



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