

Prelim Bits 21-08-2018

4D Printing

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• Scientists have successfully developed the world's first 4D printing for ceramics.

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- It can be used to create complex, shape-changing objects.
- 4D printing is conventional 3D printing combined with the additional element of **time as the 4th dimension**.

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• The 4D printed objects can re-shape or self-assemble themselves over time with external stimuli, such as mechanical force, temperature, or a magnetic field.

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- \bullet The existing 3D-printed ceramic productions are usually difficult to deform and hinder the production of ceramics with complex shapes. \n
- A novel ceramic ink was developed to stretch the ceramic products beyond its initial length and allow complex shapes with heat treatment.

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Pradhan Mantri Awas Yojana

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- PMAY aims at helping people below the poverty-line (BPL) in construction of dwelling units and upgradation of existing unserviceable kutcha houses through assistance in the form of full grant.
- Government will soon introduce provision of 'lock-in' period of five years for the houses purchased under PMAY.

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- Those who have purchased houses will not be able to sell properties within 5 years of buying to avoid the misuse of the scheme.
- Beneficiaries are people belonging to SCs/STs, freed bonded labourers and non-SC/ST categories, widows or next-of-kin of defence personnel killed in action, ex-servicemen and retired members of the paramilitary forces, Disabled persons and Minorities.
- Under **PMAY Gramin**, Government aims to construct 1 crore pucca (permanent) houses for the rural poor by 2019.
- Beneficiaries would be chosen based on the according to data taken from the Socio-Economic Caste Census of 2011.
- Under **PMAY Urban**, Government envisions "Housing for All" by 2022.
- Beneficiaries Urban poor who does not own a pucca house, Economically Weaker Section (EWS), Middle Income Groups (MIG) and Lower Income Groups (LIG).

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• Credit Linked Subsidy Scheme is an interest subsidy available to a loan amounts up to 12 lakhs at the rate of 4% (6 to 9 lakhs) and 3% (9 to 12 lakhs).

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• It is for purchase/construction/extension/improvement of house to cater EWS/LIG/MIG.

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BIMSTEC

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- Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is an international organisation involving a group of countries in South Asia and South East Asia.
- Bangladesh, India, Myanmar, Sri Lanka, Thailand, Bhutan and Nepal are its members.
- Its headquarters is in Dhaka, Bangladesh.
- The main objective of BIMSTEC is technological and economic co-operation

among south Asian and south east Asian countries along the coast of the Bay of Bengal.

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• Commerce, investment, technology, tourism, human resource development, agriculture, fisheries, transport and communication, textiles, leather etc. have been included in it.

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- \bullet It uses the alphabetical order for the Chairmanship. Accordingly, Nepal formally took over the new Chairmanship as on 2014. $\$
- Its 2018 summit is going to be held in Kathmandu.
- The previous summit was held in Myanmar in 2014.
- Free Trade Agreement among the members is yet to be finalised.

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NABH Nirman Scheme

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 NABH (NextGen Airports for BHarat) Nirman is an initiative by the Ministry of Civil Aviation.

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- Under the scheme, the government proposed to expand airport capacity by more than five times to handle a billion trips a year.
- \bullet The three aspects of NABH Nirman are building of airport capacity through, $\!\! \backslash \!\! n$

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 $\ensuremath{\mathrm{i.}}$ fair and equitable land acquisition,

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- iii. balanced economics for all stakeholders

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Funding for National Calamity

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• There is no provision in the law or rules for the government to designate a disaster as a "national calamity".

• The funding for disaster relief are governed by the National Disaster Management Policy.

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- As per the policy, the State governments have to provide disaster relief from their respective State Disaster Response Funds (SDRFs).
- \bullet Additional assistance will be provided from the National Disaster Response Fund (NDRF) only for a "calamity of severe nature". $\$
- Click here to know the criteria to define calamity of severe nature.
- **NDRF** The NDRF is funded through a National Calamity Contingent Duty levied under GST for selected goods and contribution from any person or institutions.

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- **SDRF** It is contributed by the Union government and the respective State governments in a 75:25 ratio for general category States and 90:10 for Special Category States.
- The allocation of the SDRF for each State is done by the Finance Commission, and the Centre contributes its specified share each financial year.

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Source: The Hindu, PIB, Business Standard

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