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Ministry of Health and Family Welfare

International Commitments on Family Planning

Posted On: 03 DEC 2019 1:27PM by PIB Delhi

From 2012 to 2019 India has already allocated \$2.8 billion for Family Planning as part of FP 2020 commitment. As per Track 20 estimates, the demand satisfied by contraceptives in India is 74.3%.

Most initiatives in Family Planning program are focussed on spacing methods. List of Family planning initiatives is given below:

Initiatives taken by the Government under the Family Planning Programme

1. **Mission Parivar Vikas-** The Government has launched Mission Parivar Vikas for substantially increasing access to contraceptives and family planning services in 146 high fertility districts with Total Fertility Rate (TFR) of 3 and above in seven high focus states. These districts are from the states of Uttar Pradesh, Bihar, Rajasthan, Madhya Pradesh, Chhattisgarh, Jharkhand and Assam that itself constitutes 44% of the country's population.
2. **New Contraceptive Choices-** New contraceptives viz. Injectable contraceptive and Centchroman have been added to the existing basket of choices.
3. A new method of IUCD insertion immediately after delivery i.e. **post-partum IUCD (PPIUCD)** has been introduced.
4. **Redesigned Contraceptive Packaging -** The packaging for Condoms, OCPs and ECPs has now been improved and redesigned so as to increase the demand for these commodities.
5. **Compensation scheme for sterilization acceptors -** Under the scheme MoHFW provides compensation for loss of wages to the beneficiary and also to the service provider (& team) for conducting sterilizations.
6. **Clinical Outreach Teams (COT) Scheme -** The scheme has been launched in 146 Mission Parivar Vikas districts for providing Family planning services through mobile teams from accredited organizations in far-flung, underserved and geographically difficult areas.
7. Scheme for **Home delivery of contraceptives by ASHAs** at doorstep of beneficiaries.
8. Scheme for **ASHAs to Ensure spacing in births.**
9. Scheme for provision of **Pregnancy Testing Kits** in the drug kits of ASHAs for use in communities.
10. **Family Planning Logistic Management and Information System (FP-LMIS):** A dedicated software to ensure smooth forecasting, procurement and distribution of family planning commodities across all the levels of health facilities.
11. **National Family Planning Indemnity Scheme (NFPIS)** under which clients are insured in the eventualities of death, complication and failure following sterilization.
12. Ensuring quality of care in Family Planning services by establishing **Quality Assurance**

Committees in all states and districts.

13. Appointment of dedicated **RMNCH+A counselors** at high case load facilities.

14. Improved Demand generation activities through a **360 degree media campaign**.

The Minister of State (Health and Family Welfare), Sh Ashwini Kumar Choubey stated this in a written reply in the Rajya Sabha here today.

MV/LK

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NASA'S PROBE SOARING NEAR SUN REVEALS SURPRISES ABOUT SOLAR WIND

Relevant for: Geography | Topic: The Earth and the Solar System

This image taken from video animation provided by NASA, shows flips in the direction of the magnetic field embedded in the solar wind that flows out from the Sun, as detected by the Parker Solar Probe's FIELDS instrument. | Photo Credit: [AP](#)

Troves of new data from a NASA probe's close encounters with the sun are giving scientists unique insight about the solar wind and space weather more generally as the spacecraft zooms through the outermost part of the star's atmosphere.

Researchers on December 4 described the first published findings from the Parker Solar Probe, a spacecraft launched in 2018 to journey closer to the sun than any other human-made object. The findings, offering fresh details about how the sun spawns space weather, are reshaping astronomers' understanding of violent solar wind that can hamper satellites and electronics on Earth.

"We were certainly hoping we'd see new phenomena and new processes when we got close to the sun — and we certainly did," Nicola Fox, director of the U.S. space agency's heliophysics division, told reporters. "Some of the information that we found pretty much confirmed what we expected, but some of it is totally unexpected."

Earth is roughly 93 million miles from the sun. The probe ventured as close as 15 million miles (24 million km) to the sun to gather the data used in the studies published in the journal Nature. The probe eventually will travel within about 4 million miles (6 million km) from the sun's surface, seven times closer than any previous spacecraft.

The probe has endured extreme heat while flying through the outermost part of the sun's atmosphere, called the solar corona, that gives rise to solar wind — the hot, energised, charged particles that stream outward from the Sun and fill the solar system.

Oscillations in the speed of these charged particles beaming outward from the solar corona have previously been thought to dissipate gradually, much like the waves seen after plucking a guitar string fading from the middle.

One of the probe's "really big surprises", according to one of the researchers, was the detection of sudden, abrupt spikes in the speed of the solar wind that were so violent that the magnetic field flips itself around, a phenomenon called "switchbacks".

"We're finding these discrete, powerful waves that wash over the spacecraft, kind of like rogue waves in an ocean," said Justin Kasper, a principal investigator whose team at the University of Michigan built a solar wind-sensing instrument on the Parker probe. "They carry a tremendous amount of energy."

"This will dramatically change our theories for how the corona and solar wind are being heated," Mr. Kasper added.

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Currently, children in India are vaccinated only at 9-12 months, leaving them open to infection

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MINISTRY OF TOURISM HAS IDENTIFIED “RURAL CIRCUIT” AS ONE OF THE 15 THEMATIC CIRCUITS UNDER THE SWADESH DARSHAN SCHEME: SHRI PRAHLAD SINGH PATEL

Relevant for: Geography | Topic: Factors responsible for location of Tertiary sector Industries incl. Tourism in world & India and related issues

Ministry of Tourism

Ministry of Tourism has identified “Rural Circuit” as one of the 15 thematic circuits under the Swadesh Darshan Scheme: Shri Prahlad Singh Patel

Ministry of Tourism has identified “Rural Circuit” to create job opportunities from rural tourism: Shri Prahlad Singh Patel

Posted On: 09 DEC 2019 5:15PM by PIB Delhi

The Ministry of Tourism has launched the Swadesh Darshan and PRASHAD Schemes for the development of tourism related infrastructure and facilities in the country. Recognising the potential for the development of rural tourism in the country, the Ministry of Tourism has identified “Rural Circuit” as one of the 15 thematic circuits under the Swadesh Darshan Scheme. Following projects under the Rural Circuit theme of the Swadesh Darshan Scheme has been sanctioned till date:

State	Name of Circuit/Year	Project Name
Bihar	Rural Circuit (2017-18)	“Development of Gandhi Circuit: Bhitiharwa –Chandernagore –Turkaulia in Bihar
Kerala	Rural Circuit (2018-19)	Development of Rural Circuit: Malanad Malabar C Tourism Project in Kerala

The projects under the scheme are at various stages of implementation/completion. Further, it is seen that the tourism sector is an important source of employment in the country as it is a labour intensive activity. Ministry of Tourism develops tourism related infrastructure and promotes India as a Tourism destination to increase tourist arrivals which in turn creates employment opportunities in the country. The Swadesh Darshan Guidelines have a provision to create employment through active involvement of local communities.

The Ministry also promotes the tourism destinations and products including ‘Rural Tourism’ through its websites, and publicity and promotional material produced by it from time to time. The Ministry does not maintain data with regard to employment generated by implementation of its various schemes. However, as per the 3rd Tourism Satellite Account of India (TSA) – 2015-

16 and its subsequent estimates, the contribution of tourism employment to total employment of the country during 2016-17, 2017-18, 2018-19 was 12.20%, 12.13%, 12.75% respectively.

The Ministry of Rural Development, Department of Rural Development is implementing Mahatma Gandhi National Rural Employment Guarantee Act, 2005 which provides at least 100 days of guaranteed wage employment in every financial year to every rural household in the country, whose adult members including youth volunteer to do unskilled manual work. It provides livelihood security i.e., fall back option for livelihood for the rural households when no better employment opportunity is available.

This information was given by the Minister of State (I/c) of Culture and Tourism, Shri Prahlad Singh Patel in a written reply in the Lok Sabha today.

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UNDERGROUND AQUIFER MAPPING OF GROUNDWATER

Relevant for: Geography | Topic: Distribution of key natural resources - Water Resources incl. Rivers & related issues in world & India

Ministry of Jal Shakti

Underground Aquifer Mapping of Groundwater

Posted On: 09 DEC 2019 4:22PM by PIB Delhi

Central Ground Water Board (CGWB) is implementing 'National Aquifer Mapping and Management Programme' (NAQUIM) for aquifer mapping in the country including in areas which have recorded a high depletion of ground water, in phases. Out of the total mappable area of nearly 25 lakh sq km, so far aquifer maps and management plans have been prepared for an area of nearly 11.24 lakh sq km spread over various parts of the country. As per the ground water resource assessment carried out jointly by CGWB and State ground water departments, 1186 assessment units in the country have been categorized as over-exploited, of which aquifer mapping has been completed in nearly 75% Units.

Government of India launched Jal Shakti Abhiyan which is a time bound campaign with a mission mode approach intended to improve water availability including ground water conditions in the water stressed blocks of 256 districts in India. In this regard, teams of officers from Central Government along-with technical officers from Ministry of Jal Shakti were deputed to visit water stressed districts and to work in close collaboration with district level officials to undertake suitable interventions for sustainable water management.

Water being a State subject, initiatives on water management including conservation and artificial recharge to ground water in the Country is primarily States' responsibility. The important measures taken by the Central Government for conservation, management of ground water and effective implementation of rain water harvesting in the country are at the following URL:

[http://mowr.gov.in/sites/default/files/Steps to control water depletion Jun2019.pdf](http://mowr.gov.in/sites/default/files/Steps_to_control_water_depletion_Jun2019.pdf).

This information was given by Union Minister of State for Jal Shakti & Social Justice and Empowerment, Shri Rattan Lal Kataria in a written reply in Rajya Sabha today.

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NITI AAYOG REPORT ON WATER CRISIS

Relevant for: Geography | Topic: Distribution of key natural resources - Water Resources incl. Rivers & related issues in world & India

Ministry of Jal Shakti

NITI Aayog Report on Water Crisis

Posted On: 09 DEC 2019 4:22PM by PIB Delhi

The report titled “Composite Water Management Index”, published by NITI Aayog in June 2018, mentions that India is undergoing the worst water crisis in its history and nearly 600 million people are facing high to extreme water stress. The report further mentions that India is placed at 120th amongst 122 countries in the water quality index, with nearly 70% of water being contaminated.

As per the 5th Minor Irrigation Census (with reference year 2013-14) conducted by Ministry of Water Resources, River Development and Ganga Rejuvenation (now Ministry of Jal Shakti), there are 20.52 million wells in the country, which includes dug wells, shallow tube wells, medium tube wells and deep tube wells. On the other hand, NITI Aayog figures include only shallow, medium and deep tube wells and do not include dug wells.

This information was given by Union Minister of State for Jal Shakti & Social Justice and Empowerment, Shri Rattan Lal Kataria in a written reply in Rajya Sabha today.

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DEPLETION OF WATER TABLES

Relevant for: Geography | Topic: Distribution of key natural resources - Water Resources incl. Rivers & related issues in world & India

Ministry of Jal Shakti

Depletion of Water Tables

Posted On: 09 DEC 2019 4:20PM by PIB Delhi

NITI Aayog, in its report titled “Composite Water Management Index” published in June 2018, has mentioned that 21 major cities are expected to run out of groundwater by 2020. This is based on the estimates of annual groundwater replenishment and its extraction. However, it does not take into account the groundwater availability in the deeper aquifers.

Practices for efficient and sustainable management of water resources such as conjunctive use of surface water and ground water resources, participatory ground water practices, increasing water use efficiency amongst others need to be promoted on a large scale by involving all the stake-holders to deal with future water demand challenges.

Government of India launched Jal Shakti Abhiyan which is a time bound campaign with a mission mode approach intended to improve water availability including ground water conditions in the water stressed blocks of 256 districts in India. In this regard, teams of officers from Central Government along-with technical officers from Ministry of Jal Shakti were deputed to visit water stressed districts and to work in close collaboration with district level officials to undertake suitable interventions.

Water being a State subject, efforts to conserve and manage ground water is primarily States responsibility. A number of States have done notable work in this regard. Of these, mention can be made of ‘Mukhyamantri Jal Swavlamban Abhiyan’ in Rajasthan, ‘Jalyukt Shibir’ in Maharashtra, ‘Sujalam Sufalam Abhiyan’ in Gujarat, ‘Mission Kakatiya’ in Telangana, Neeru Chettu’ in Andhra Pradesh among others.

Central Government supports construction of water harvesting and conservation works primarily through Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) and Pradhan Mantri Krishi Sinchayee Yojana – Watershed Development Component (PMKSY-WDC).

Also, as per Ministry of Rural Development, 19,64,995 water conservation and water harvesting works have been completed in different States under MGNREGS during the period 2014-15 to 2019-20 with cumulative expenditure of Rs 31907.32 Cr as uploaded by the States in Management Information System.

Also, as per Ministry of Rural Development, Department of Land Resources, 6,08,384 water harvesting structures have been created/rejuvenated in different states under PMKSY-WDC component during the period 2014-15 to 2019-20 (upto September 2019). Further, as on 31.10.2019, Rs.17751.75 crore has been released to States as Central share for implementation of Watershed Development Projects.

Water being a State subject, efforts to initiate suitable demand side and supply side interventions including conservation and management of water resources is primarily States’

responsibility. However, steps taken by the Central Government in this regard are at the following URL:

http://mowr.gov.in/sites/default/files/Steps_to_control_water_depletion_Jun2019.pdf.

This information was given by Union Minister of State for Jal Shakti & Social Justice and Empowerment, Shri Rattan Lal Kataria in a written reply in Rajya Sabha today.

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PER CAPITA AVAILABILITY OF WATER

Relevant for: Geography | Topic: Distribution of key natural resources - Water Resources incl. Rivers & related issues in world & India

Ministry of Jal Shakti

Per Capita availability of Water

Posted On: 09 DEC 2019 4:20PM by PIB Delhi

Water availability per person is dependent on population of the country and for India, per capita water availability in the country is reducing due to increase in population. The average annual per capita water availability in the years 2001 and 2011 was assessed as 1816 cubic meters and 1545 cubic meters respectively which may further reduce to 1486 cubic meters in the year 2021.

Water being a State subject, steps for augmentation, conservation and efficient management of water resources are primarily undertaken by the respective State Governments. In order to supplement the efforts of the State Governments, Central Government provides technical and financial assistance to them through various schemes and programmes.

Ministry of Jal Shakti has launched Jal Shakti Abhiyan (JSA) - a campaign for water conservation and water security. During the campaign, officers, groundwater experts and scientists from the Government of India worked together with State and district officials in India's most water-stressed districts for water conservation and water resource management.

Central Government has formulated a National Perspective Plan (NPP) for Water Resources Development which envisages transfer of water from water surplus basins to water deficit basins to improve availability of water.

Government of India has launched Atal Mission for Rejuvenation and Urban Transformation (AMRUT) on 25th June, 2015 in select 500 cities across the country for a period of five years i.e. from 2015-16 to 2019-20 with focus on development of basic civic amenities in the Mission cities. Under the water supply component of the Mission, projects related to rain water harvesting, rejuvenation of water bodies specifically for drinking water supply, recharging of ground water, etc., can be taken up by the States/UTs to enhance water supply in the Mission cities.

The Government of India has launched Jal Jeevan Mission (JJM), which aims at providing functional household tap connections to every rural household by 2024 at the service level of 55 litre per capita per day. This Mission will focus on integrated demand and supply side management of water at the local level, including creation of local infrastructure for source sustainability like rainwater harvesting, groundwater recharge and management of household wastewater for reuse in agriculture.

Some initiatives/measures taken by Central Government to control water depletion and promote rain water harvesting / conservation are available at the URL:

http://mowr.gov.in/sites/default/files/Steps_to_control_water_depletion_Jun2019.pdf

This information was given by Union Minister of State for Jal Shakti & Social Justice and Empowerment, Shri Rattan Lal Kataria in a written reply in Rajya Sabha today.

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MINISTRY OF TOURISM HAS IDENTIFIED 17 SITES IN 12 CLUSTERS IN THE COUNTRY FOR DEVELOPMENT AS ICONIC TOURIST SITES: SHRI PRAHLAD SINGH PATEL

Relevant for: Geography | Topic: Factors responsible for location of Tertiary sector Industries incl. Tourism in world & India and related issues

Ministry of Tourism

Ministry of Tourism has identified 17 sites in 12 clusters in the country for development as Iconic Tourist Sites: Shri Prahlad Singh Patel

Posted On: 10 DEC 2019 5:35PM by PIB Delhi

The Government has identified some world class iconic tourist stations in India to attract foreign and domestic tourists.

Pursuant to the Budget Announcements of 2018-19, Ministry of Tourism has identified 17 sites in 12 clusters in the country for development as Iconic Tourist Sites namely Taj Mahal & Fatehpur Sikri (Uttar Pradesh), Ajanta & Ellora (Maharashtra), Humayun's Tomb, Red Fort & Qutub Minar (Delhi), Colva (Goa), Amer Fort (Rajasthan), Somnath & Dholavira (Gujarat), Khajuraho (Madhya Pradesh), Hampi (Karnataka), Mahabalipuram (Tamil Nadu), Kaziranga (Assam), Kumarakom (Kerala) and Mahabodhi Temple (Bihar).

The Ministry shall be developing the above sites in a holistic manner with focus on issues concerning connectivity to the destination, better facilities/experience for the tourists at the site, skill development, and involvement of local community, promotion & branding and by bringing private investment. The development of Iconic Tourist sites scheme is awaiting approval of the Ministry of Finance.

This information was given by the Minister of State (I/c) of Culture and Tourism, Shri Prahlad Singh Patel in a written reply in the Lok Sabha today.

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NOT MANY LESSONS LEARNT FROM WATER PLANNING FAILURES

Relevant for: Geography | Topic: Distribution of key natural resources - Water Resources incl. Rivers & related issues in world & India

Following the massive water crisis across India in the summer of 2019, the Central government hurriedly launched the Jal Shakti Abhiyan (JSA), a time-bound, mission-mode water conservation campaign to be carried out in two phases, across the 255 districts having critical and over-exploited groundwater levels. This campaign, however, was not intended to be a funding programme and did not create any new intervention on its own. It only aimed to make water conservation a 'people's movement' through ongoing schemes like the MGNREGA and other government programmes.

The JSA is partly modelled and driven by some sporadic success stories such as NGO Tarun Bharat Sangh's experiment in Alwar, Rajasthan and Anna Hazare-led efforts in Ralegan Siddhi, Maharashtra. These projects primarily involved building tanks and ponds to capture rainwater and building recharge wells to recharge groundwater. However, it is unclear whether they were based on reference to watershed management or groundwater prospect maps.

Water planning should be based on hydrological units, namely river basins. And, political and administrative boundaries of districts rarely coincide with the hydrological boundaries or aquifer boundaries. However, contrary to this principle of water management, JSA was planned based on the boundary of the districts, and to be carried out under the overall supervision of a bureaucrat. This resulted in the division of basins/aquifers into multiple units that followed multiple policies. There was no data on basin-wise rainfall, no analysis of run-off and groundwater maps were rarely used. As a result, one never came to know whether water harvested in a pond in a district was at the cost of water in adjoining districts.

The JSA also fundamentally ignored the fact that most of India's water-stressed basins, particularly those in the peninsular regions, are facing closure, with the demand exceeding supply. Hence, groundwater recharge happened at the cost of surface water and vice versa. This is where an absence of autonomous and knowledge-intensive river-basin organisations is acutely felt.

As on date, the JSA's portal displays impressive data, images and statistics. For example, it claims that there are around 10 million ongoing and completed water conservation structures; 7.6 million recharge structures. The website also says that one billion saplings have been planted and that six million people participated in awareness campaigns. But, data and statistics can deceive or lie, as claimed by journalist Darrel Huff in his 1954 book *How to Lie with Statistics*.

For example, the data displayed on JSA portal do not speak anything about the pre-JSA water levels, the monthly water levels and impact of monsoon on the water levels across the 255 districts with critical and over-exploited blocks. They also don't convey anything about the quality of the structures, their maintenance and sustainability. Even if the water levels had been measured, it is unknown whether the measurement was accurate. Many such queries remain unanswered and hidden behind these data and statistics. The results for a 2016 study conducted by the Central Groundwater Board showed that water levels always increase post-monsoon. Therefore, it will require long-term monitoring of water level data to determine the actual impact of a measure like JSA. At present, there is no such parameter to measure the

outcome of such a mission-mode campaign. The rat race among districts for ranking has turned out to be meaningless.

True, the aim and intent of JSA are noble. But the assumptions are distorted. For example, it assumes that common people in rural areas are ignorant and prone to wasting water; on the contrary, they are the ones who first bear the brunt of any water crisis. The per capita water allocation to those living in rural areas is 55 litres, whereas the same for urban areas like Delhi and Bengaluru is 135-150 litres.

Therefore, the JSA's move to reach out to poor people and farmers, asking them to 'save water', appears hypocritical, particularly when district administrations blatantly allow the sewage generated from towns and cities to pollute village water sources such as tanks, ponds and wells.

Moreover, it is difficult to say whether measures like JSA can provide long-term solutions. Most of the farm bunds built with soil can collapse within one monsoon season due to rains and/or trespassing by farm vehicles, animals and humans. Further, there are issues like lack of proper engineering supervision of these structures, involvement of multiple departments with less or no coordination, and limited funding under MGNREGA and other schemes. Finally, there have hardly been many efforts undertaken to dissuade farmers from growing water-intensive crops such as paddy, sugarcane, and banana, when it is widely known that agriculture consumes 80% of freshwater.

The summer water crisis has not led to our policymakers learning many lessons, and the country just seems to have returned to a business-as-usual situation.

J. Harsha is Director, Central Water Commission. Views expressed in the article are personal

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JOINT VENTURE FOR LPG PIPELINE PROJECTS

Relevant for: Geography | Topic: Distribution of Key Natural Resources - Minerals & Oil Resources of the World

Ministry of Petroleum & Natural Gas

Joint Venture for LPG Pipeline Projects

Posted On: 11 DEC 2019 3:41PM by PIB Delhi

Establishment of LPG Pipeline infrastructure is taken up by the Public Sector Oil Marketing Companies (OMCs) based on techno-commercial feasibility studies. LPG Pipelines are laid from refineries to LPG bottling plants. Petroleum and Natural Gas Regulatory Board (PNGRB) established under the PNGRB Act, 2006, in the year 2007, is the authority to grant authorization for laying of LPG pipelines. Entities that propose to lay, build, operate or expand a pipeline apply to the Board for obtaining authorisation under the Act.

The total length of LPG Pipeline network in the country is 8,296 km comprising of the following pipelines:-

- i. Panipat-Jalandhar LPG Pipeline (Length: 280 Km)
- ii. Paradip-Haldia-Durgapur LPG pipeline (Length: 673 Km); (extension of pipeline to Patna and Muzaffarpur results in total length of 918 Km)
- iii. Ennore-Trichy-Madurai LPG pipeline (Length: 615 Km)
- iv. Kandla-Gorkhpur LPG pipeline (Length: 2757 Km)
- v. Jamnagar-Loni LPG pipeline (Length: 1414 Km)
- vi. Vizag-Secunderabad LPG pipeline (Length: 621 Km)
- vii. Mangalore-Hassan-Mysuru-Yediyuru LPG pipeline (Length: 356 Km)
- viii. Uran-Chakan/Shikrapur LPG pipeline (Length: 168 Km)
- ix. Hassan-Cherlapally LPG pipeline (Length: 680 Km)
- x. Mumbai-Uran LPG pipeline (Length: 29 Km)
- xi. Kochi-Coimbatore-Salem LPG pipeline (Length: 458 Km)

Three OMCs namely, Indian Oil Corporation Limited, Hindustan Petroleum Corporation Limited and Bharat Petroleum Corporation Limited have formed a consortium for submitting the bid to PNGRB for authorization for Kandla-Gorakhpur LPG Pipeline. PNGRB has granted authorization to the consortium for implementing and operating Kandla-Gorakhpur LPG Pipeline.

This information was given by the Union Minister for Petroleum and Natural Gas Shri Dharmendra Pradhan in a written reply in the Rajya Sabha today.

SK/TFK

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INTER-LINKING OF RIVERS

Relevant for: Geography | Topic: Distribution of key natural resources - Water Resources incl. Rivers & related issues in world & India

Ministry of Jal Shakti

Inter-Linking of Rivers

Posted On: 12 DEC 2019 7:14PM by PIB Delhi

The National Perspective Plan (NPP) was prepared by the then Ministry of Irrigation (now Ministry of Jal Shakti) in August 1980 for water resources development through inter basin transfer of water, for transferring water from water surplus basins to water-deficit basins. Under the NPP, the National Water Development Agency (NWDA) has identified 30 links (16 under Peninsular Component & 14 under Himalayan Component) for preparation of Feasibility Reports (FRs). Under the Peninsular Component, the Godavari(Inchampalli)-Krishna(Nagarjunasagar) link and Godavari(Inchampalli)-Krishna(Pulichintalla) link projects envisage to provide benefits to Telangana State. NWDA have prepared the FRs of these two links.

Subsequently, alternate studies for diversion of unutilised waters of Indravati sub-basin to Krishna, Pennar and Cauvery basins have been carried out and accordingly draft Detailed Project Report (DPR) of Godavari-Cauvery link project consisting of three links viz; Godavari (Inchampalli/Janampet) – Krishna (Nagarjunasagar), Krishna (Nagarjunasagar) – Pennar (Somasila), Pennar (Somasila)-Cauvery (Grand Anicut) link projects has been completed and circulated to party States in March 2019 for comments. As per the draft DPR, this link project will benefit about 9.38 lakh ha of area, out of which 1.84 lakh ha lies in Telangana.

The stage of implementation of a project would be reached after its DPR is prepared with the consensus of concerned States and the requisite statutory clearances are obtained.

An enabling allocation of Rs.100 lakhs for inter-linking of river programme has been made in the budget of each of the last three years including current year. No fund has been utilized as no inter-linking of rivers project has reached the stage of execution.

This information was given by the Minister of State for Jal Shakti & Social Justice and Empowerment, Shri Rattan Lal Katariain a written reply in Lok Sabha today.

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KEN-BETWA RIVER INTER-LINKING PROJECT

Relevant for: Geography | Topic: Distribution of key natural resources - Water Resources incl. Rivers & related issues in world & India

Ministry of Jal Shakti

Ken-Betwa River Inter-Linking Project

Posted On: 12 DEC 2019 7:13PM by PIB Delhi

The Detailed Project Report (DPR) of Ken-Betwa link project (KBLP) (Phase-I, Phase-II and Comprehensive) has been completed. The techno-economic clearance and various statutory clearances of the KBLP Phase-I have been accorded (except Stage-II Forest clearance and clearance from Central Empowered Committee (CEC) of the Supreme Court). The Environmental clearance and Forest land diversion clearances for Lower Orr dam (part of phase-II) have been recommended by Environment Appraisal Committee (EAC) and Forest Appraisal Committee (FAC) of Ministry of Environment, Forest and Climate Change (MoEF& CC) respectively. Stage-I forest clearance has been accorded by MoEF& CC for Lower Orr dam project. Ministry of Tribal Affairs (MoTA) clearance for Rehabilitation and Resettlement (R&R) plan of Project Affected Families (PAFs) of Lower Orr dam has also been accorded. Environmental clearance and Stage-I&II forest clearances for Bina complex projects have been accorded by MoEF& CC. Comprehensive DPR of KBLP has been prepared and sent to Governments of Uttar Pradesh and Madhya Pradesh and Central Water Commission (CWC) in October, 2018.

As per the comprehensive DPR, the total annual irrigation under the KBLP is 9.04 lakh ha comprising of 6.53 lakh ha in Madhya Pradesh and 2.51 lakh ha in Uttar Pradesh. Out of the 6017 ha of forest area coming under submergence of Daudhan dam of KBLP, 4206 ha of area lies within the core tiger habitat of Panna Tiger Reserve.

The interlinking of rivers (ILR) programme has been taken up on high priority. The Government is pursuing the ILR program in a consultative manner. A "Special Committee on Interlinking of Rivers" has been constituted in September, 2014 for the implementation of ILR programme. Sixteen meetings of the Special Committee have been held so far. Further, a Task Force for Interlinking of Rivers has been constituted by MoWR, RD & GR in April, 2015 and eleven meetings of the Task Force have been held so far. Efforts have been made for building consensus among the concerned States and also setting out road maps for implementation of the projects. In respect of KBLP, meetings have been convened by Central Government at the level of Chief Ministers as well as at the level of Chief Secretaries of the party States to expedite the implementation of the project.

The National Water Development Agency (NWDA) received 47 intra-State link proposals from nine States. NWDA prepared Pre-feasibility reports of 37 links and sent to the concerned States. The remaining links have been found not feasible or withdrawn by concerned States. The DPRs of intra-State links viz. (i) Burhi Gandak-Noon-Baya-Ganga link of Bihar, (ii) Kosi-Mechi link of Bihar, (iii) Ponnaiyar-Palar Link of Tamil Nadu, (iv) Wainganga (Gosikhurd)-Nalganga (PurnaTapi) Link of Maharashtra have been completed and sent to the concerned State Governments. Out of the above four intra-State links, the techno-economic clearance for Kosi-Mechi intra-State link project has been accorded by Ministry of Jal Shakti. The Environmental clearance for the project has also been accorded by MoEF& CC.

This information was given by the Minister of State for Jal Shakti & Social Justice and Empowerment, Shri Rattan Lal Katariain a written reply in Lok Sabha today.

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ATAL BHUJAL YOJANA

Relevant for: Geography | Topic: Distribution of key natural resources - Water Resources incl. Rivers & related issues in world & India

Ministry of Jal Shakti

Atal Bhujal Yojana

Posted On: 12 DEC 2019 7:13PM by PIB Delhi

The World Bank has approved Atal Bhujal Yojana (ABHY), a Rs.6,000 Crore Central Sector Scheme, for sustainable management of ground water resources with community participation. The funding pattern is 50:50 between Government of India and World Bank.

The scheme envisages active participation of the communities in various activities such as formation of Water User Associations, monitoring and disseminating ground water data, water budgeting, preparation and implementation of Gram-Panchayat wise water security plans and Information, Education & Communication (IEC) activities related to sustainable ground water management.

The identified over-exploited and water stressed areas for the implementation of the scheme fall in the States of Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh. The States have been selected according to a number of criteria, including degree of groundwater exploitation and degradation, established legal and regulatory instruments, institutional readiness, and experience in implementing initiatives related to groundwater management.

This information was given by the Minister of State for Jal Shakti & Social Justice and Empowerment, Shri Rattan Lal Katariain a written reply in Lok Sabha today.

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PRIME MINISTER CHAIRS FIRST MEETING OF NATIONAL GANGA COUNCIL

Relevant for: Geography | Topic: Distribution of key natural resources - Water Resources incl. Rivers & related issues in world & India

Ministry of Jal Shakti

Prime Minister chairs first meeting of National Ganga Council

Posted On: 14 DEC 2019 5:46PM by PIB Delhi

Prime Minister Shri Narendra Modi chaired the first meeting of the National Ganga Council in Kanpur, Uttar Pradesh today.

The Council has been given overall responsibility for superintendence of pollution prevention and rejuvenation of River Ganga Basin, including Ganga and its tributaries. The first meeting of the Council was aimed at reinforcing the importance of a 'Ganga-centric' approach in all departments of the concerned states as well as relevant Central Ministries.



Today's meeting was attended by Union Ministers for Jal Shakti, Environment, Agriculture and Rural Development, Health, Urban Affairs, Power, Tourism, Shipping and Chief Ministers of Uttar Pradesh and Uttarakhand, Deputy Chief Minister of Bihar, Vice Chairman Niti Aayog and other senior officials. The state of West Bengal was not present in the meeting and Jharkhand did not participate because of the ongoing elections and the Model Code of Conduct being in force.

Prime Minister, while reviewing the progress of work done and deliberating on various aspects of cleaning river Ganga with a focus on 'swachhta', 'aviralta' and 'nirmalta'. He observed that Maa Ganga is the holiest river on the sub-continent and its rejuvenation should embody a shining example of cooperative federalism. Prime Minister said that rejuvenation of Ganga has been a long pending challenge for the country. He noted that a lot had been accomplished since the

Government took up 'Namami Gange' in 2014 as a comprehensive initiative integrating various government efforts and activities with the aim of pollution abatement, conservation and rejuvenation of Ganga, notable achievements being zero waste creation by paper mills and reduction in pollution from tanneries; but much more needs to be done.



For the first time, the Central Government had made commitment of Rs. 20,000 crores for the period 2015-20 to the five states through which Ganga passes, to ensure adequate as well as uninterrupted water flows in the river. Rs. 7700 crores have already been spent so far, prominently for construction of new sewage treatment plants.

Prime Minister emphasized that an improvement framework for Nirmal Ganga would require fullest cooperation from the public at large and greater awareness through dissemination of best practices from cities situated along the banks of national rivers. Efficiency of District Ganga Committees should be improved in all districts, in order to provide a effective framework for expeditious implementation of plans.



The Government has set up the Clean Ganga Fund (CGF) to facilitate contributions from

individuals, NRIs, corporate entities for funding Ganga rejuvenation projects. Hon'ble PM has personally donated Rs. 16.53 crores to CGF, from the amount realized from auction of the gifts he received since 2014 and the prize money of the Seoul Peace prize.

Prime Minister urged for a holistic thinking process where 'Namami Gange' evolves to 'Arth Ganga' or a sustainable development model with a focus on economic activities related to Ganga. As part of this process, farmers should be encouraged to engage in sustainable agriculture practices, including zero budget farming, planting of fruit trees and building plant nurseries on the banks of Ganga. Priority could be given to women Self Help Groups and ex-servicemen organizations for these programs. Such practices, along with creation of infrastructure for water sports and development of camp sites, cycling and walking tracks etc , would help to tap the 'hybrid' tourism potential of the river basin area- for purposes of religious as well as adventure tourism. The income generated from encouraging eco-tourism and Ganga wildlife conservation and cruise tourism etc. would help to generate sustainable income streams for cleaning of Ganga.

For monitoring the work progress and activities from various schemes and initiatives under Namami Gange and Arth Ganga, PM also gave directions for the setting up of a Digital Dashboard where data from villages and urban bodies should be monitored on a daily basis by Niti Ayog and Ministry of Jal Shakti. Prime Minister also said that like aspirational districts, all districts bordering Ganga should be made a focus area for monitoring efforts under Namami Gange.



Prior to the meeting, Prime Minister paid floral tributes to legendary freedom fighter Chandrashekhar Azad and viewed an exhibition on 'Namami Gange' interventions and projects at the Chandrashekhar Azad Agriculture University. Later in the day, Prime Minister visited Atal Ghat and also inspected the successfully completed work of cleaning at Sisamau Nala.

VRRK/SH

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A STAR AND ITS PLANET GET INDIAN NAMES AFTER A GLOBAL CONTEST

Relevant for: Geography | Topic: The Earth and the Solar System

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A white yellow star in Sextans constellation and its Jupiter-like exoplanets, which were hitherto named HD 86081 and 86081b, will now have Indian names.

The International Astronomical Union (IAU) on December 17 announced that while the star would be called 'Bibh', the planet would be known as 'Santamasa'. The star has been named in honour of a pioneering Indian woman scientist Bibha Choudhury, who discovered subatomic particle, pi-meson. 'Bhibha' also means "a bright beam of light" in Bengali. The planet has been named S'antamasa' to reflect the cloudy nature of its atmosphere. 'Santamasa' is the Sanskrit term for 'clouded'.

The IAU chose the name at the end of a global contest called 'NameExoWorlds', which was organised as part of its centenary celebrations. The agency, which turned 100 on July 28, had allowed every country in the world to give a famous name to a selected pair of exoplanet and its host star. India was allotted HD 86081 and its exoplanet HD 86081b.

The contest was launched on 10th July 2019. By August 15, the last date for submission, a total of 1,717 youngsters had suggested names, and a committee of experts shortlisted 10 for public voting. The final entry was selected after voting by 5,587 people.

Ananyo Bhattacharya, a 22-year-old student of Sardar Vallabhbhai National Institute of Technology at Surat, had suggested the name of 'Bhibha' for the star and 13-year-old Vidyasagar Daud of Singhad Spring Dale Public School, Pune, had suggested 'Santamasa' for the planet.

Some of the other names approved by the IAU for other stars and planets from other countries include the names of mythological dogs, Bran, Tuiren, from the Irish legend for a host star and its exoplanet located in the constellation of Canes Venatici (the Hunting Dogs), Wadirum and Petra, names of ancient cities of Jordan for a star and its exoplanet in the constellation of Aquila, Baiduri and Intan, names of gemstones in Malay language for a pair in the constellation of Fornax (the Furnace) and Nakambé and Mouhoun, the two prominent rivers of Burkina Faso for a star and exoplanet in constellation of Eridanus (The River).

Once a star and few of its characteristics are found, they are listed in a catalogue such as Henry Draper Catalogue (HD) and assigned telephone-number-like designations. "There has been growing interest amongst astronomers and the public alike to also assigning proper names, as is done for Solar System bodies," says Eric Mamajek, co-chair of the NameExoWorlds Steering Committee of IAU.

Announcing the names at a press conference at Paris, Project Manager, Eduardo Monfardini Penteado, said: "The IAU 100 NameExoWorlds campaign provided the public with the exciting opportunity to help with the naming of over 100 new worlds and their stars."

Somak Raychaudhury, Inter-University Centre for Astronomy and Astrophysics Director and member of the national committee of IAU, said, "I am delighted that we can recognise

contributions of Dr. Bibha Choudhury by naming a unique cosmic body after her.” HD 86081 would have remained nondescript and unnamed but for the discovery of a planet going around that star in 2006. Observing the minute wobble of the star as the unseen planet tugged it as it orbited around it, John Asher Johnson a Californian astronomer and his colleagues concluded that there was a star with an exoplanet orbiting it.

More than 110 countries took part in the naming campaign, and over 7,80,000 people participated worldwide to propose and select names for each exoplanet and its host star. In India, the campaign was coordinated by the Public Outreach and Education Committee of the Astronomical Society of India (ASI). “The ASI is very pleased that IAU has accepted the names suggested from India,” said ASI president G.C. Anupama.

‘Bibh’, nee HD 8608, is located in the constellation of Sextans. It is as hot as the sun, with a surface temperature of about 6,000 degrees Kelvin. It is 1.55 times bigger, 1.21 times massive, and 1.75 times brighter. It is so far away that light from it takes 310.93 years to reach Earth and hence it is visible only with a telescope.

While Sun, which is five billion years old, is in its middle age, ‘Bibh’ is an ageing star, 6.210 billion years old. ‘Santamasa’, which is its only planet, is estimated to have a mass of 1.5 times that of Jupiter, going around the central star in a nearly circular orbit just in 2.1375 days. Revolving so near the host star, the planet is expected to be very hot. Significantly, this year Nobel Prize in Physics has been partly awarded to the discovery of an exoplanet orbiting a solar-type star. The first exoplanet discovered in 1995, designated 51 Pegasi b, was named Dimidium in the first NameExoWorlds public naming campaign by the IAU in 2015. Until July 1, 2019, astronomers have identified 4,098 exoplanets of which 665 stars have more than one planets.

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NITI AAYOG TO DRAFT ROADMAP FOR ACHIEVING POPULATION STABILISATION

Relevant for: Geography | Topic: Demography of the World - Growth of Population

NITI Aayog

NITI Aayog to draft roadmap for achieving population stabilisation

Consultative meeting to be held tomorrow in collaboration with the Population Foundation of India (PFI)

Posted On: 19 DEC 2019 4:33PM by PIB Delhi

NITI Aayog is organising a National Consultation titled ***“Realizing the vision of population stabilization: leaving no one behind”*** tomorrow on 20 December 2019 at NITI Bhavan, New Delhi.

The consultative meeting being organised in partnership with Population Foundation of India (PFI) will bring together senior officials, experts and subject matter specialists to discuss ways and means of strengthening India’s population policy and family planning programmes. The recommendations from the consultation will contribute to a NITI Aayog working paper to help achieve India’s vision of attaining population stabilization, as voiced by Prime Minister Narendra Modi on 15 August 2019.

The working paper is expected to address key gaps in India’s family planning programmes. It will offer constructive recommendations to address regional disparities in outcomes by focusing on adolescents and youths, inter-departmental convergence, demand generation, access to contraceptive services and quality of care.

Some of the key recommendations expected to emerge from the meeting are as follows:

1. Increasing the basket of contraceptive choices, with greater focus on spacing methods and helping women make informed choices about delaying pregnancy and spacing between children.
2. Addressing social determinants of health such as age at marriage and sex-selective practices.
3. Strengthening quality of care, including counseling services, managing side effects and family planning support.
4. Increasing budgetary allocations for family planning, to align with the unmet needs of India’s young people who constitute nearly 30 per cent of our population.
5. Addressing existing socio-cultural barriers towards contraception by investing extensively in innovative behaviour-change communication strategies.
6. Treating population stabilisation and family planning as a national priority, fostering inter-departmental convergence and ensuring multisectoral participation and integration.

India, with a current population size of 1.37 billion, has the second largest population in the world. We are also at a stage where birth rates are falling but the population continues to grow due to the fact that more than 30 per cent of the population is young and in the reproductive age group. Nearly 30 million currently married women in the age group of 15-49 years within this critical cohort of young people have unmet needs in family planning, which limit their ability to delay or avoid pregnancy by not having access or the agency to use contraception. Family planning is considered universally as the smartest development investment. For India to realize its sustainable development goals and economic aspirations, it is important to ensure that people have informed access to contraception and quality family planning services.

VRRK/KP

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WORLD'S OLDEST FOSSIL FOREST UNCOVERED IN US

Relevant for: Geography | Topic: The Earth, its Evolution and Origin of Life on Earth

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Scientists have discovered remnants of the world's oldest fossil forest — an extensive network of trees around 386 million years old — in a sandstone quarry in the U.S.

The fossil forest in Cairo would have spread from New York all the way into Pennsylvania and beyond, according to the researchers from Binghamton University, and New York State Museum in the U.S.

The forest is around 2 or 3 million years older than what was thought to be the world's oldest forest at Gilboa, also in New York State and around 40 kilometres away from the Cairo site.

The finding, published in the journal *Current Biology*, throws new light on the evolution of trees and the transformative role they played in shaping the world we live in today.

The team, including researchers from Cardiff University in the UK, mapped over 3,000 square metres of the forest at the abandoned quarry in the foothills of the Catskill Mountains in the Hudson Valley.

"It is surprising to see plants which were previously thought to have had mutually exclusive habitat preferences growing together on the ancient Catskill delta," said co-author of the study Chris Berry from Cardiff University.

"This would have looked like a fairly open forest with small to moderate sized coniferous-looking trees with individual and clumped tree-fern like plants of possibly smaller size growing between them," Mr. Berry said.

The research shows that the forest was home to at least two types of trees.

Cladoxylopsids, primitive tree-fern-like plants, lacked flat green leaves, and grew in vast numbers at Gilboa, while *Archaeopteris* had a conifer-like woody trunk and frond-like branches which had green flattened leaves.

A single example of a third type of tree was also uncovered, which remained unidentified but could possibly have been a lycopod, the researchers said.

All these trees reproduced using only spores rather than seeds, they said.

The team also reported a 'spectacular' and extensive network of roots which was more than eleven metres in length in some places and belonged to the *Archaeopteris* trees.

It is these long-lived woody roots, with multiple levels of branching and small, short-lived perpendicular feeder roots, that transformed the interactions of plants and soils, the researchers said.

The roots were pivotal to the co-evolution of forests and the atmosphere, they said.

The researchers said that the Cairo forest is older than the one at Gilboa because the fossils were lower down in the sequence of rocks that occur in the Catskill mountains.

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Currently, children in India are vaccinated only at 9-12 months, leaving them open to infection

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PRIME MINISTER LAUNCHES ATAL BHUJAL YOJANA

Relevant for: Geography | Topic: Distribution of key natural resources - Water Resources incl. Rivers & related issues in world & India

Ministry of Jal Shakti

Prime Minister Launches Atal Bhujal Yojana

Strategic Tunnel under Rohtang Pass named after former Prime Minister Atal Bihari Vajpayee

Drinking water through taps will be provided to every household: Shri Gajendra Singh Shekhawat

Atal Bhujal Yojana will be implemented through Jal Jeevan Mission (JJM) in 8350 villages in seven States

Posted On: 25 DEC 2019 2:53PM by PIB Delhi

On the Birth anniversary of former Prime Minister Atal Bihari Vajpayee, Prime Minister Shri Narendra Modi launched Atal Bhujal Yojana (ATAL JAL) and named the Strategic Tunnel under Rohtang Pass after Vajpayee, in an event held in New Delhi today.



Speaking on the occasion, Prime Minister said that today the name of a big project which is very important for the country, Rohtang Tunnel, connecting Manali, Himachal Pradesh with Leh, Ladakh and Jammu Kashmir, will now be known as Atal Tunnel. He also said that this strategic tunnel will change the fortunes of this region. It will help in promoting tourism in the region.

On Atal Jal Yojana, PM highlighted that the subject of water was very important to Atal ji and very close to his heart. Our Government is striving to implement his vision. Atal Jal Yojana or the guidelines related to the Jal Jeevan Mission, are big steps in proving the resolve to deliver water to every household in the country by 2024, the PM added. He said that this water crisis is worrying for us as a family, as a citizen and as a country also it affects development. New India has to prepare us to deal with every situation of water crisis. For this, we are working together on five levels.



Prime Minister emphasized that Jal Shakti Ministry freed the water out of Compartmentalized Approach and laid stress on a Comprehensive and Holistic Approach. In this monsoon, we have seen how extensive efforts have been made for water conservation on behalf of the society, from the Jal Shakti Ministry. He said that on one hand, Jal Jeevan Mission, will work towards delivering piped water supply to every house, and on the other hand Atal Jal Yojana, will pay special attention to those areas where groundwater is very low.

To incentivise gram panchayats to perform better in water management, Prime Minister said that a provision has been made in the Atal Jal Yojana, in which better performing gram panchayats, will be given more allocation. He said that in 70 years, only 3 crore out of 18 crore rural households have access to piped water supply. Now our Government has set the target to deliver clean drinking water to 15 crore homes in the next five years through pipes.

Prime Minister emphasized that water-related schemes should be made according to the situation at every village level. This has been taken care while making the guidelines of the Jal Jeevan Mission, he added. He also said that both Union and State Governments will spend Rs 3.5 lakh crore on water related schemes in the next 5 yrs. He requested the people of every

village to make a water action plan and create a water fund. Farmers should make a water budget where groundwater is very low.

Speaking on the occasion, the Union Defence Minister, Shri Rajnath Singh said that our economy is dependent on water conservation and we have to be carefully using water resources. We need to take concerted efforts to increase the ground water level. Shri Singh complemented the Prime Minister for naming the Rohtang tunnel after the former PM Shri Atal Bihari Vajpayee as 'Atal tunnel'.



The Union Minister for Jal Shakti, Shri Gajendra Singh Shekhawat while addressing the gathering said that under Atal Bhujal Yojana, government is committed to provide safe drinking water to every household in the country. He further said that largely we are dependent on ground water and it is fulfilling 85% of drinking water requirements in the country. There is every need to take steps to increase the ground water level, he added.



The Minister of State for Jal Shakti, Social Justice & Empowerment, Shri Rattan Lal Kataria and other dignitaries were present on the occasion.

Atal Bhujal Yojana (ATAL JAL)

ATAL JAL has been designed with the principal objective of strengthening the institutional framework for participatory groundwater management and bringing about behavioral changes at the community level for sustainable groundwater resource management in seven States, viz. Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh. Implementation of the scheme is expected to benefit nearly 8350 Gram Panchayats in 78 districts in these States. ATAL JAL will promote panchayat led ground water management and behavioural change with primary focus on demand side management

Out of the total outlay of Rs. 6000 crore to be implemented over a period of 5 years (2020-21 to 2024-25), 50% shall be in the form of World Bank loan, and be repaid by the Central Government. The remaining 50% shall be through Central Assistance from regular budgetary support. The entire World Bank's loan component and Central Assistance shall be passed on to the States as Grants.

Tunnel under Rohtang Pass

The historic decision to construct a strategic tunnel below the Rohtang Pass was taken by former Prime Minister Atal Bihari Vajpayee. The 8.8-kilometre long tunnel is the world's longest tunnel above an altitude of 3,000 metres. It will reduce the distance between Manali and Leh by

46 kilometres and save crores of rupees in transport costs. It is a 10.5-metre wide single tube bi-lane tunnel with a fire proof emergency tunnel built into the main tunnel itself. The breakthrough from both ends was achieved on October 15, 2017. The tunnel is now nearing completion and is a step in the direction of providing all weather connectivity to remote border areas of Himachal Pradesh and Ladakh which otherwise remained cut off from the rest of the country for about six months during winters._

Following are the Operational Guidelines:

1. The Union Cabinet on 13.08.2019 approved Jal Jeevan Mission (JJM) to provide Functional Household Tap Connection (FHTC) to every rural household by 2024.
2. As per the information available, out of 17.87 Crore rural households in the country, about 14.6 Crore which accounts for 81.67% are yet to have household water tap connections. The total project cost is estimated to be about Rs 3.60 lakh Crore. Central share will be Rs.2.08 lakh Crore. The fund sharing pattern to be 90:10 for Himalayan and North-Eastern States; 50:50 for other States and 100% for UTs.
3. Broad contours of the JJM was circulated to all the States/UTs giving details of the Mission and expected actions from States/ UTs. A National Level State Ministers' conference chaired by the Minister of Jal Shakti was held on 26/8/2019, wherein modalities of implementation of JJM were discussed at length.
4. As decided by the Government, five regional workshops were organized one each in north, east, west, south and north-eastern regions of the country, wherein all stakeholders in water supply like, State Governments, voluntary organizations, development partners, professionals in water sector, etc. participated.
5. Further, the Department has carried out review of questions raised by Hon'ble MPs in Parliament, for developing a broad understanding of issues in drinking water supply sector as are being faced in different parts of the country with the purpose that, while formulating guidelines, strategy and implementation aspects to the issues at hand get addressed to the extent possible. Similarly, Standing Committee reports and Audit reports were examined in detail to get an overview of the shortcomings in the implementation of NRDWP so as to address the observations in the guidelines.
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health and thereby socio-economic condition of the rural population and will also bring down the drudgery of rural women, especially girls.

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CABINET APPROVES ATAL BHUJAL YOJANA

Relevant for: Geography | Topic: Distribution of key natural resources - Water Resources incl. Rivers & related issues in world & India

Cabinet

Cabinet approves Atal Bhujal Yojana

Posted On: 24 DEC 2019 4:25PM by PIB Delhi

The Union Cabinet chaired by the Prime Minister Shri Narendra Modi has given its approval for the implementation of the Atal Bhujal Yojana (ATAL JAL), a Central Sector Scheme with a total outlay of Rs.6000 crore to be implemented over a period of 5 years (2020-21 to 2024-25).

The scheme aims to improve ground water management through community participation in identified priority areas in seven States, viz. Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh. Implementation of the scheme is expected to benefit nearly 8350 Gram Panchayats in 78 districts in these States. ATAL JAL will promote panchayat led ground water management and behavioural change with primary focus on demand side management

Out of the total outlay of Rs. 6000 crore, 50% shall be in the form of World Bank loan, and be repaid by the Central Government. The remaining 50% shall be through Central Assistance from regular budgetary support. The entire World Bank's loan component and Central Assistance shall be passed on to the States as Grants.

ATAL JAL has two major components:

- A. **Institutional Strengthening and Capacity Building Component** for strengthening institutional arrangements for sustainable ground water management in the States including improving monitoring networks, capacity building, strengthening of Water User Associations, etc.
- B. **Incentive Component** for incentivising the States for achievements in improved groundwater management practices namely, data dissemination, preparation of water security plans, implementation of management interventions through convergence of ongoing schemes, adopting demand side management practices etc.

ATAL JAL will result in:

- i. Institutional strengthening for improving ground water monitoring networks and capacity building of stakeholders at different levels which will enhance ground water data storage, exchange, analysis and dissemination.
- ii. Improved and realistic water budgeting based on an improved database and preparation of community-led Water Security Plans at Panchayat level
- iii. Implementation of Water Security Plans through convergence of various ongoing/new schemes of the Government of India and State Governments to facilitate judicious and effective utilization of funds for sustainable ground water management.
- iv. Efficient use of available ground water resources with emphasis on demand side measures such as micro-irrigation, crop diversification, electricity feeder separation etc.

Impact:

- a. Source sustainability for Jal Jeevan Mission in the project area with active participation of local communities.
- b. Will contribute towards the goal of doubling the farmers' income.
- c. Will promote participatory ground water management.
- d. Improved water use efficiency on a mass scale and improved cropping pattern;
- e. Promotion of efficient and equitable use of ground water resources and behavioural change at the community level;

Background:

Ground water contributes to nearly 65% of total irrigated area of the country and nearly 85% of the rural drinking water supply. The limited ground water resources in the country are under threat due to the increasing demands of growing population, urbanization and industrialization. Intensive, and unregulated ground water pumping in many areas has caused rapid and widespread decline in ground water levels as well as reduction in the sustainability of ground water abstraction structures. The problem of reduction in ground water availability is further compounded by deteriorating ground water quality in some parts of the country. The increasing stress on ground water due to over- exploitation, contamination and associated environmental impacts threaten to endanger the food security of the nation, unless necessary preventive / remedial measures are taken on priority.

Ministry of Jal Shakti has taken a pioneering initiative for ensuring long term sustainability of ground water resources in the country through the Atal Bhujal Yojana (ATAL JAL) by adopting a mix of 'top down' and 'bottom up' approaches in identified ground water stressed blocks in seven states, representing a range of geomorphic, climatic and hydrogeologic and cultural settings. ATAL JAL has been designed with the principal objective of strengthening the institutional framework for participatory ground water management and bringing about behavioral changes at the community level for sustainable ground water resource management. The scheme envisages undertaking this through various interventions, including awareness programmes, capacity building, convergence of ongoing/new schemes and improved agricultural practices etc.

VRRK/SC/SH

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TYPHOON PHANFONE BATTERS PHILIPPINES, THOUSANDS HIT

Relevant for: Geography | Topic: Important Geophysical Phenomenon - Tropical Cyclones

Moving to safety:Residents wading through a flooded highway in Ormoc City in Philippines on Wednesday.AFP

Typhoon Phanfone pummelled the central Philippines on Christmas Day, bringing a wet, miserable and terrifying holiday to millions in the mainly Catholic nation.

The police said six people were missing as the typhoon leapt from one small island to another for the second day — crumpling houses, toppling trees and blacking out cities and towns, including in popular resorts like Boracay.

At the height of the festive season on Wednesday, tens of thousands were stranded at shuttered ports or evacuation centres, while the rest of the region's population cowered in rain-soaked homes.

Though weaker, Phanfone was tracking a similar path to Super Typhoon Haiyan, the country's deadliest cyclone on record which left more than 7,300 people dead or missing in 2013.

More than 16,000 people spent the night in improvised shelters in schools, gyms and government buildings as the typhoon first made landfall on Tuesday, civil defence officials said.

"It was frightening. The glass windows shattered and we took cover by the stairs," Ailyn Metran said after she and her four-year-old child took refuge at the state weather service office in Tacloban city, where her husband worked.

More than 25,000 people remained stranded at ports on Christmas Day with ferry services still shut down, the coast guard said. Scores of flights to the region also remained cancelled, though the populous capital Manila has so far been spared.

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PRIME MINISTER RELEASES OPERATIONAL GUIDELINES FOR THE IMPLEMENTATION OF JAL JEEVAN MISSION (JJM)

Relevant for: Geography | Topic: Distribution of key natural resources - Water Resources incl. Rivers & related issues in world & India

Ministry of Jal Shakti

Prime Minister releases Operational Guidelines for the implementation of Jal Jeevan Mission (JJM)

Posted On: 25 DEC 2019 6:10PM by PIB Delhi

1. The Prime Minister released the Operational Guidelines of JJM in a function organised at Vigyan Bhawan, which is observed as Good Governance, here day. The Operational Guidelines will help various functionaries involved in the implementation of Jal Jeevan Mission.
2. The event was also graced by the Minister of Defense, the Minister Jal Shakti, the Minister of State Jal Shakti. Officials from various departments, farmers from different states, representatives of UN agencies, NGOs/ trusts, and various stakeholders working in the water sector attended the function.
3. The Union Cabinet on 13.08.2019 approved Jal Jeevan Mission (JJM) to provide Functional Household Tap Connection (FHTC) to every rural household by 2024.
4. As per the information available, out of 17.87 Crore rural households in the country, about 14.6 Crore which accounts for 81.67% are yet to have household water tap connections. The total project cost is estimated to be about Rs 3.60 lakh Crore. Central share will be Rs.2.08 lakh Crore. The fund sharing pattern to be 90:10 for Himalayan and North-Eastern States; 50:50 for other States and 100% for UTs.
5. Broad contours of the JJM was circulated to all the States/ UTs giving details of the Mission and expected actions from States/ UTs. A National Level State Ministers' conference chaired by Hon'ble Minister of Jal Shakti was held on 26/8/2019, wherein modalities of implementation of JJM were discussed at length.
6. As decided by the Government, five regional workshops were organized one each in north, east, west, south and north-eastern regions of the country, wherein all stakeholders in water supply like, State Governments, voluntary organizations, development partners, professionals in water sector, etc. participated.
7. Further, the Department has carried out review of questions raised by Hon'ble MPs in Parliament, for developing a broad understanding of issues in drinking water supply sector as are being faced in different parts of the country with the purpose that, while formulating guidelines, strategy and implementation aspects to the issues at hand get addressed to the extent possible. Similarly, Standing Committee reports and Audit reports were examined in detail to get an overview of the shortcomings in the implementation of NRDWP so as to address the observations in the guidelines.
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SHAPE OF SUN'S CORONA ACCURATELY PREDICTED

Relevant for: Geography | Topic: The Earth and the Solar System

Good match: The LASCO instrument's observation overlaid on the large scale coronal magnetic field lines predicted by the team.

Solar physicists from Centre for Excellence in Space Sciences (CESSI), IISER Kolkata, have succeeded in predicting the shape of Sun's corona at the time of the annular eclipse on December 25. The corona is the outermost part of the Sun's atmosphere. This is the second successful prediction, counting the last solar eclipse that was viewed from South America on July 2 this year. While the earlier prediction differed slightly from the actual image, this time, it has been pretty close to the real thing. This was imaged by NASA and European Space Agency's space-based Solar and Heliospheric Observatory (SOHO) using the LASCO instrument. "For the South American Eclipse of 2 July, our predicted streamer tilts were slightly larger than observed at large distances from the Sun. This time, it is far better. We are still trying to figure out why this worked so well this time," says Dibyendu Nandi, who is a professor and Principal Investigator at CESSI.

The Predictive Solar Surface Flux Transport model developed by the CESSI team can predict the shape of the corona well in advance. Prantika Bhowmik, now at Durham University, UK, developed this model with Dr Nandi. "Our previous research indicates that we can predict the large-scale structure of the Sun's corona up to two months in advance. This is great, because this gives advance knowledge and a large window of preparedness for space weather driven by coronal magnetic fields," says Dr. Nandi. Space weather consists of the varying conditions such as solar wind and is different from weather on earth.

"The dynamic events on the Sun can affect Earth's outer atmosphere and our technologies, leading to disruption in communication and navigation networks (GPS). These are more frequent during solar maxima and pose a threat to space reliant technology and astronauts," says Soumyaranjan Dash, PhD student at IISER Kolkata who works on this model.

This time, they had used inputs and made the prediction 43 days ahead of the eclipse. "The only way to verify these models is to either have photographs taken during the eclipse which captures the Sun's corona or use space- or ground-based instruments which use an artificial disc to occult the Sun's surface to make the faint corona visible," Dr Nandi adds in an email to *The Hindu*.

This time, since this was an annular eclipse with a ring of bright solar surface visible, the corona was not directly observable. The only option was to use a coronagraph with an occulting disc. "The only functional one in the world is in Hawaii in Mount Mauna Loa which has been having bad weather. Also it was night in Hawaii when the eclipse happened," he adds. So the researchers used the images generated by the space based coronagraph instrument LASCO on board the SOHO satellite.

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NOT A DROP TO WASTE

Relevant for: Geography | Topic: Distribution of key natural resources - Water Resources incl. Rivers & related issues in world & India

In 2020, according to the Niti Aayog, 21 Indian cities, including Delhi, Chennai and Bengaluru, will run out of groundwater. The Aayog's "Composite Water Management Index" (CWMI), released in June, notes that "Seventy per cent of our water resources are contaminated". Several other reports, including the Central Water Commission's "Water and Water Related Statistics 2019", have thrown light on the poor state of India's groundwater aquifers. The urgency of the [Atal Bhujal Yojana](#), launched by the Union Jal Shakti Ministry last week, can, therefore, hardly be overstated. The groundwater revival scheme ticks quite a few right boxes. It seeks to strengthen the "institutional framework of administering groundwater resources and aims to bring about behavioural changes at the community level for sustainable groundwater resource management". However, the Yojana that will be implemented in seven states — Gujarat, Haryana, Karnataka, Maharashtra, Madhya Pradesh, Rajasthan and Uttar Pradesh — should only be seen as the first step towards restoring the health of the country's aquifers.

India has had a Groundwater Management and Regulation Scheme since 2013. The Atal Bhujal Yojana will draw on some of the institutions created by this scheme, especially village-level water user associations (WUAs). The Jal Shakti Ministry will have its task cut out. The Niti Aayog's CWMI notes that though "80 per cent states have a regulatory framework to establish such associations, progress on the ground is weak". Less than 50 per cent states involve the WUAs in critical groundwater management decisions like those pertaining to irrigation resources, according to the CWMI. The Atal Bhujal Yojana would do well to follow the Niti Aayog's recommendations for strengthening the financial state of the WUAs, including allowing these bodies to retain a significant portion of irrigation fees.

Groundwater contributes to more than 60 per cent of the country's irrigation resources. Power consumers in the agriculture sector are billed at highly subsidised rates, which several studies have shown accounts for the over-extraction of groundwater. However, there is also a substantial body of work which shows that it is politically imprudent to install electricity meters on farmers' fields. The discourse on groundwater use has to move beyond this binary: Ways must be found to balance the demands of farmers with the imperatives of reviving the country's aquifers. One solution — tried out in parts of Punjab — is to gradually reduce subsidies and offer cash compensation to farmers for every unit of electricity they save. The CWMI report talks of other solutions like persuading farmers to adopt more efficient technologies such as drip irrigation. By emphasising on local-level institutions like the WUAs, the Atal Bhujal Yojana has signaled the Jal Shakti ministry's inclination towards such persuasive solutions.

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