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Women's SHGs to power Drone Ki Udaan: Prime Minister

Addressing the nation from the ramparts of the Red Fort on the 77th Independence Day today, Prime Minister Shri Narendra Modi has said that the Government is working with Women's Self Help Groups (SHGs) with the aim of creating 2 crore 'Lakhpati Didis' in villages. The PM observed that 10 crore women are today associated with Women's Self-Help Groups. "In villages today, one can find a Didi in the Bank, in the Anganwaadi and a Didi to provide medicines."

The Prime Minister spoke about Agri-tech and made a pitch for leveraging the potential of science and technology in rural development. The PM said that 15,000 Women's Self-Help Groups would be given loan and training for operating and repairing drones. "Drone ki Udaan" will be carried out by these Women's Self-Help Groups, said the PM.

Self Help Groups

Self-help Groups (SHGs) are informal associations of people who come together to find ways to improve their living conditions. They are generally self-governed and peer-controlled.

People of similar economic and social backgrounds associate generally with the help of any NGO or government agency and try to resolve their issues, and improve their living conditions.

The emergence of Self Help Groups – Origin and Development in India

The origin of SHGs in India can be traced back to the establishment of the Self-Employed Women's Association (SEWA) in 1972.

Even before, there were small efforts at self-organising. For example, in 1954, the Textile Labour Association (TLA) of Ahmedabad formed its women's wing in order to train the women belonging to families of mill workers in skills such as sewing, knitting, etc.

Ela Bhatt, who formed SEWA, organised poor and self-employed women workers such as weavers, potters, hawkers, and others in the unorganised sector, with the objective of enhancing their incomes.

NABARD, in 1992, formed the SHG Bank Linkage Project, which is today the world's largest microfinance project.

From 1993 onwards, NABARD, along with the Reserve Bank of India, allowed SHGs to open savings bank accounts in banks.

The Swarn Jayanti Gram Swarozgar Yojana was introduced in 1999 by GOI with the intention of promoting self-employment in rural areas through formation and skilling of such groups. This evolved into the National Rural Livelihoods Mission (NRLM) in 2011.

The Rangarajan Committee Report highlighted four major reasons for lack of financial inclusion in India. They are:

Inability to give collateral security

Weak credit absorption capacity

The insufficient reach of institutions

Weak community network

It is being recognised that one of the most important elements of credit linkage in rural areas is the prevalence of sound community networks in Indian villages.

SHGs play a vital role in giving credit access to the poor and this is extremely crucial in poverty alleviation.

They also play a great role in empowering women because SHGs help women from economically weaker sections build social capital.

Financial independence through self-employment opportunities also helps improve other development factors such as literacy levels, improved healthcare and better family planning.

Advantages of Self Help Groups

- Financial Inclusion – SHGs incentivise banks to lend to poor and marginalised sections of society because of the assurance of returns.
- Voice to marginalised – SHGs have given a voice to the otherwise underrepresented and voiceless sections of society.
- Social Integrity – SHGs help eradicate many social ills such as dowry, alcoholism, early marriage, etc.
- Gender Equality – By empowering women SHGs help steer the nation towards true gender equality.
- Pressure Groups – SHGs act as pressure groups through which pressure can be mounted on the government to act on important issues.

Self Help Groups in India

Kudumbashree in Kerala

Mahila Aarthik Vikas Mahamandal (MAVIM) in Maharashtra

Meet 'Pibot,' the humanoid robot that can safely pilot an airplane better than a human

Pibot is a humanoid robot that can fly aircraft without needing to modify the cockpit.

The robot's memory is so large that it can memorise all Jeppesen navigation charts, a task that is impossible for human pilots.

Both artificial intelligence (AI) and robotics have made significant strides in recent years, meaning most human jobs could soon be overtaken by technology - on the ground and even in the skies above us.

A team of engineers and researchers from the Korea Advanced Institute of Science & Technology (KAIST) is currently developing a humanoid robot that can fly aircraft without needing to modify the cockpit.

"Pibot is a humanoid robot that can fly an aeroplane just like a human pilot by manipulating all the single controls in the cockpit, which is designed for humans," David Shim, an associate professor of electrical engineering at KAIST, told Euronews Next.

This self-driving patrol robot is being used to detect danger and alert police on Seoul's streets

The robot, dubbed "Pibot," can control its arms and fingers to dextrously operate the flight instruments, even with severe vibration in an aircraft, using high-precision control technology.

Its external cameras allow Pibot to monitor the current state of the aircraft and the internal ones help it manage essential switches on the control panel.

Pibot is able to memorise complex manuals presented in natural language, a feat that enhances its adaptability across various aircraft.

"Humans can fly many aeroplanes, but they do have these habits built into them. So when they try to convert to different aeroplanes they have to take another qualification. Sometimes this is not that simple because our habit remains in our mind that we can't simply change from one to the other," said Shim.

"With the pilot robot, if we teach individual aeroplane configuration, then you can fly the aeroplane by simply clicking the aeroplane's type," he added.

The research team says Pibot "understands" and memorises manuals originally written for humans thanks to recent advances in large language models (LLM).

Flying alone or as a copilot

Pibot can also be plugged into aircraft to directly communicate with them. It's currently designed to be deployed in extreme situations where human involvement may not be beneficial.

The humanoid robot can also communicate with air traffic controllers and humans in the cockpit using voice synthesis, allowing it to act as a pilot or a first officer.

Its adaptability goes beyond the aviation sphere. Standing at 160 cm and weighing 65 kg, Pibot's humanoid design allows it to seamlessly replace humans in roles like driving automobiles, operating tanks, or even commanding ships at sea.

"The human form may not be super efficient but we specifically designed Pibot to be a humanoid form because all the things are built for humans. We can have eight arms and four eyes but we find the human form is somehow optimal," Shim explained.

The robot is still in development and is expected to be completed by 2026.

Vitamin D intake 'may reduce cancer mortality in the population by 15%'

Vitamin D deficiency is linked to an increased cancer mortality risk, particularly in relation to bowel, stomach, prostate, and lung cancers.

- Taking regular Vitamin D supplements may reduce cancer deaths in the population by 15%, according to scientists.

- Data gathered from the UK Biobank, an online database of medical and lifestyle records of around 500,000 Britons, indicates vitamin D deficiency is linked to an increased cancer mortality risk – particularly in relation to bowel, stomach, prostate, and lung cancers.
- The researchers said their work, published in Elsevier's European Journal of Cancer, adds to evidence that vitamin D may have a protective effect against cancer.
- While the findings do not explain why this happens, the team said one possibility is that vitamin D supplements may induce anti-inflammatory, antioxidant, and DNA damage repair mechanisms, which can thwart mutations that allow tumours to grow.

Study author Ben Schottker, an epidemiologist at the German Cancer Research Centre, said: "Our findings identified a statistically significant relationship between vitamin D deficiency and increased mortality among several cancers.

Prime Ministers' Museum and Library (PMML) Society

The Nehru Memorial Museum and Library (NMML) has officially been renamed the Prime Ministers' Museum and Library Society recently.

It is an autonomous institution under the Ministry of Culture, Government of India.

PMML is dedicated to the objective of promoting advanced research on Modern and Contemporary India.

Designed by Robert Tor Russel and built in 1929-30 as part of Edwin Lutyens' imperial capital, Teen Murti House was the official residence of the Commander-in-Chief in India.

In August 1948, after the departure of the last British Commander-in-Chief, Teen Murti House became the official residence of independent India's first Prime Minister, Jawaharlal Nehru, who lived here for sixteen years until his death on May 27, 1964.

On Jawaharlal Nehru's 75th birth anniversary on November 14, 1964 Dr. Sarvapalli Radhakrishnan, President of India, formally dedicated the Teen Murti House to the nation and inaugurated the Nehru Memorial Museum.

On 1 April 1966, the Government set up the Prime Ministers Museum and Library (PMML) Society to manage the institution.

NANDAKINI RIVER

Nandakini River's water level rose above the danger mark

The Nandakini River's water level crossed the danger mark in the Nandanagar area, Chamoli, Uttarakhand, due to incessant rainfall.

River water entered houses, leading residents to evacuate and find shelter in safer areas.

Vehicles buried under debris from mountain slides on the Badrinath highway in Mayapur due to heavy downpour. No casualties reported.

Red Alert and Meteorological Warning

The Indian Meteorological Department issued a red alert for Uttarakhand on August 13 and 14.

Heavy to very heavy rainfall, reaching extremely heavy levels, forecasted for the mentioned dates.

IMD's warning emphasized the need for safety precautions.

Current Conditions and Impact

Several districts of the state experienced heavy rain for several days, resulting in waterlogging, flooding, and disruption of normal life.

People faced difficulties and challenges due to the ongoing heavy rainfall and its consequences.

About Nandakini River

The Nandakini River is a prominent watercourse flowing through the state of Uttarakhand in northern India.

Originating from the Nanda Devi Mountain, this river traverses a picturesque landscape and plays a vital role in the ecology and livelihoods of the region.

Source and Origin

The Nandakini River originates from the Nanda Devi Mountain, the second-highest peak in India, located in the Garhwal Himalayas.

Glacial meltwater and springs contribute to the river's initial formation, giving it a pristine and freshwater source.

Course and Route

The river flows in a generally southeasterly direction, passing through scenic valleys, forests, and quaint villages.

It crosses important towns and locations like Ghat, Nandprayag, and Chamoli, further enhancing the river's significance for local communities.

Confluence and Tributaries

The Nandakini River eventually merges with the Alaknanda River at Nandprayag, a confluence that holds cultural and religious importance.

The river is fed by several tributaries, such as the Gauriganga and Madhyamaheshwar Ganga, which contribute to its flow and overall ecosystem.

Religious and Cultural Significance

The Nandakini River is associated with various myths and legends, contributing to its revered status in local Hindu culture.

Pilgrims and tourists often visit the river's banks and nearby locations as part of religious journeys and spiritual activities.

Vulnerability to Natural Events

The Nandakini River, like other Himalayan rivers, is vulnerable to natural events such as heavy rainfall, glacial melt, and landslides.

The region's topography and weather patterns can lead to sudden changes in water levels and the potential for flash floods.

Environmental and Ecological Impact

The river supports a diverse range of plant and animal species, contributing to the region's biodiversity and ecosystem health.

Its water is essential for irrigation and sustains agricultural practices in the surrounding areas.

CAUVERY WATER SHARING ISSUE

Tamil Nadu has approached the Supreme Court with a plea to direct Karnataka to release 24,000 cusecs of water from its reservoirs and ensure its availability at Biligundlu, the inter-State border point, for the remaining days of August.

The Tamil Nadu government had approached the Supreme Court with the special leave petition under Article 136.

The Tamil Nadu Government had approached the court because the Karnataka government was not following the award of the tribunal.

Article 136 makes the Supreme Court the highest appellate court. It says that the Supreme Court may, in its discretion, grant special leave to appeal from any judgement, decree, determination, sentence or order passed by any court or tribunal in the territory of India.

The petition also seeks the Court's direction to Karnataka to comply with the Cauvery Water Disputes Tribunal (CWDT)'s final award of February 2007, as modified by the SC in 2018, and release 36.76 TMC of water for September 2023.

The petition is based on the contention that Karnataka has failed to honour its obligations under the award and has caused severe distress to Tamil Nadu's farmers who depend on the Cauvery water for irrigation.

How is the water being shared?

The Cauvery River basin is divided among four states: Karnataka, Tamil Nadu, Kerala and Puducherry. The sharing of water from this basin has been a source of dispute for decades. To resolve this issue, the Supreme Court of India gave a verdict in February 2018, based on the recommendations of the Cauvery Water Disputes Tribunal (CWDT) in 2007.

According to the verdict, Karnataka has to release 177.25 TMC of water to Tamil Nadu in a normal year, from June to May. Out of this, 123.14 TMC has to be released from June to September, which is the southwest monsoon season. However, this arrangement often leads to conflicts when the rainfall is less than expected.

To ensure compliance with the verdict, the Cauvery Water Management Authority (CWMA) and Cauvery Water Regulation Committee (CWRC) were set up in 2018. These bodies monitor the water situation and hold meetings regularly.

Cauvery water sharing issue

About

The Cauvery water-sharing issue is a longstanding and complex dispute between the Indian states of Karnataka and Tamil Nadu over the sharing of water from the Cauvery River. The river originates in Karnataka and flows through both Karnataka and Tamil Nadu before emptying into the Bay of Bengal.

The dispute revolves around the allocation of water for irrigation, drinking water, and other uses between the two states.

Background

The origins of the Cauvery water dispute can be traced back to the 19th century when agreements were signed between the princely state of Mysore (now Karnataka) and the British Madras Presidency (now Tamil Nadu). These agreements were revised over time, with the Cauvery Water Disputes Tribunal (CWDT) being established in 1990 to resolve the conflicting demands of Karnataka, Tamil Nadu, Kerala, and Puducherry (union territory) regarding water sharing.

Impact

Agricultural Distress: Farmers in the Cauvery Basin heavily depend on the river's water for irrigating their crops, particularly during the crucial sowing and growing stages. Fluctuations in water availability due to the dispute have resulted in the following consequences:

Crop Failures: Inconsistent water supply has led to crop failures, reducing farmers' incomes and pushing them into debt.

Unpredictable Planning: Farmers find it challenging to plan their agricultural activities effectively due to uncertainty about water availability, affecting crop choices and cultivation practices.

Economic Losses: Crop losses translate to economic losses for farmers, affecting their livelihoods and contributing to the cycle of poverty.

Water Scarcity: Water scarcity is a significant outcome of the dispute, impacting various aspects of daily life and the environment:

Drinking Water Shortages: Reduced water allocation affects the availability of clean and safe drinking water for both urban and rural populations.

Hygiene and Health Issues: Water scarcity can lead to inadequate sanitation and hygiene practices, increasing the risk of waterborne diseases.

Ecological Impact: Insufficient water flow in the river affects aquatic ecosystems, biodiversity, and the overall health of the river.

Urbanization Challenges: Rapid urbanization in both states has increased water demand for domestic and industrial purposes, exacerbating water scarcity issues.

Political Tensions: The Cauvery water dispute has had significant political implications and has often been a source of tension between Karnataka and Tamil Nadu:

Interstate Relations: The dispute strains relations between the two states, affecting collaboration in other areas and hindering overall development.

Public Outcry: The public often demands strong action from political leaders, putting pressure on them to adopt aggressive stances on the issue.

Protests and Violence: The dispute has led to protests, rallies, and even violent incidents, which disrupt normal life and can lead to law and order problems.

Legal Battles: The protracted legal battles over water sharing consume time, resources, and energy that could be otherwise invested in more productive pursuits.

CLOUDBURST

Recent heavy rains in Himachal Pradesh have led to landslides, resulting in casualties and damage.

Defining a Cloudburst

A cloudburst is an intense, localized rainfall event, often occurring in hilly regions. The rainfall intensity is specific: 10 cm or more within an hour over an approximately 10 km x 10 km area constitutes a cloudburst.

Even 5 cm of rainfall in a half-hour within the same area qualifies as a cloudburst.

Comparing Cloudbursts to Regular Rainfall

In comparison, India receives about 116 cm of annual rainfall on average. During a cloudburst, a location may receive around 10% of its yearly rainfall in just one hour, causing extreme and sudden flooding.

Impact and Connection to Damage

Cloudbursts often lead to landslides and flash floods due to the terrain, causing significant destruction downstream.

Despite localized impact, the consequences of cloudbursts can extend beyond the immediate area.

Forecasting Challenges

While the Indian Meteorological Department (IMD) forecasts rainfall events, predicting exact rainfall quantities is challenging.

Forecasts cover relatively large geographical areas, becoming less accurate for smaller regions.

Specific cloudbursts cannot be precisely predicted due to limited instruments and technology.

Increase in Extreme Rainfall

While there is no clear rise in cloudburst incidents, extreme rainfall and weather events are increasing globally.

Climate change contributes to more intense wet spells with heavier rainfall in shorter periods.

This pattern suggests a potential increase in cloudbursts as part of the changing climate scenario.