

Hindustan Times- 26- July-2023

# Havoc in the hills has key lessons for India

Heavy rain has wreaked havoc in the hill states. It holds lessons on how to better manage projects and give people a voice in decisions around them

**T**he hill states of Himachal Pradesh (HP) and Uttarakhand have been marooned by one deluge after another this month, exposing basic problems in the conception, design and implementation of infrastructure development projects. Himachal is the hardest hit. It received an average of 250 mm daily rainfall, compared to the normal 77 mm, in the first 11 days of July; the eastern districts of Kullu, Bilaspur, Mandi, Shimla and Solan received rainfall several times in excess of the state average. In Uttarakhand, the cumulative rainfall deviation from the normal in the first 10 days of July was slightly higher than that in Himachal. Heavy rainfall continues to pound both states.

The downpour has exacted a heavy toll. HP reported 108 deaths till July 14 while Uttarakhand reported 26 till July 15. During this period, landslides blocked hundreds of roads almost daily in Uttarakhand, including the prestigious all-weather Char Dham highway, causing hardship and economic losses to residents and tourists. A bridge collapse on the Girthi river affected defence movement to the Indo-Tibet border in Chamoli district. Power and water supplies were disrupted and schools

closed for several days in both the states. Bridges have been submerged or collapsed, landslides and rockfalls have flooded towns and breached highways, and several buildings and vehicles have been swept away. The devastation is particularly stark in HP.

During this disaster, the Beas has been at its most destructive, but not only due to natural causes. Several large hydropower dams in the upper Beas basin above Mandi made sudden unplanned releases due to the threat of floods in their own catchments. These additional surges into the already swollen river enhanced downstream damages. Similar problems were seen in Uttarakhand. On July 11, the Uttarakhand Jal Vidyut Nigam Limited, the state hydropower developer in Uttarakhand, shut 17 of its 19 plants to prevent silt-laden waters from damaging turbines.

The dam-related problems could have been significantly minimised if the Union ministries of jal shakti or environment, forests and climate change had scientifically established environmental flows and ensured that dam operators followed them, as repeatedly advised by river ecologists and activists.

The worst destruction occurred around infrastructure sites. Small mountain streams with steep valleys have limited flood-bearing capacity. Construction debris from infrastructure projects is routinely dumped into such streambeds, further lowering their flood-bearing capacity. A clip recorded by local residents

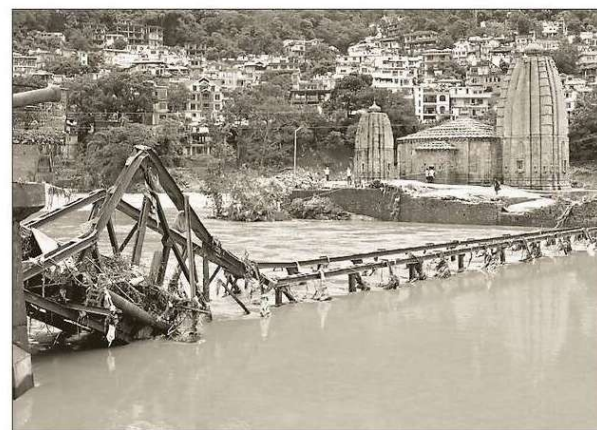
showed a ferocious, muddy deluge carrying logs down a steep streambed and smashing into a market lane in Thunag town, wreaking havoc in its main market. This newspaper carried a report on construction debris and illegally felled tree trunks having been dumped in the streambed by a road construction project in the upstream Thandi village, home of the former chief minister Jai Ram Thakur. The Thandi road is one of several infrastructure projects in the area which is also Thakur's electoral constituency. Such projects are often poorly planned and shoddily constructed to meet accelerated construction deadlines. Contractors unrealistically lower their budgets to win projects that later stoke disasters.

A drone video showed large breaches — some well over 100 metres — in the four-lane Mandi-Manali National Highway, leaving about 7,000 vehicles in Manali stranded. In some places, the highway actually seemed to be built on the river bank. In these stretches, the road was likely constructed on colluvial deposits (soft sediments) and toe erosion by the swollen Beas led to the breaches. Similar failures were noted in 2013 on the Kedarnath highway in Uttarakhand, but highway developers and engineers seem to have learned little from that disaster. The collapse of a chunk of the Badrinath highway in Uttarakhand also offered proof that such construction remained vulnerable to landslides.

The violation of an HP high court rule that buildings must be at least



Ravi Chopra



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ANI

100 metres away from river banks was dramatically demonstrated when a three-story hotel collapsed into the Beas in Manali. Indeed, hotels and homestays continue to mushroom on Manali's river banks. Violations of a similar rule are evident in Haridwar, Rishikesh and other Uttarakhand riverside towns.

Rising atmospheric carbon dioxide levels, global warming and higher ocean temperatures generate more moisture-laden clouds, but local conditions determine the fallout of extreme rainfall events. Their intensities and frequencies appear to be increasing in India and worldwide. When these events occur in highly populated or economically developed areas, the loss of life and destruction of nature, infrastructure and property is massive.

Enhanced security for the environment, life, infrastructure and property demands good governance to ensure effective regulations, adherence to safety codes, and honest, regular monitoring during and after construction. Improved structural safety factors, that account for heightened rainfall and flood intensities, and adherence to good engineering practices can reduce death and

destruction.

Unfortunately, good governance is hard to find. Since people's lives and life-support systems are at stake when infrastructure-induced disasters occur, they must have an effective voice in the planning, sanctioning and monitoring of infra projects. Honestly prepared environment impact assessments (EIA) and public hearings can help maximise the security of nature, lives, and property. Hence the steady weakening of regulatory systems and the EIA framework should be condemned as anti-people and anti-nature and, in spite of establishment claims, against efficient economic growth.

Finally, larger questions loom. What is the carrying capacity of the fragile Himalayan region? What are the limits of sustainable economic growth? Can we keep destroying Himalayan forests and still avoid disasters? Can we keep encouraging more tourists to drive their SUVs through eco-sensitive Himalayan river valleys?

It's now up to the people to find answers.

Ravi Chopra is a veteran environmentalist. The views expressed are personal.



Telangana Today- 26- July-2023

# PRLIS: State makes fresh presentation

## Environmental clearance for the project pursued vigorously

D CHANDRA BHASKAR RAO  
HYDERABAD

Addressing green hurdles that came in the way of the implementation of irrigation component under the Palamuru-Ranga Reddy Lift Irrigation Scheme (PRLIS) Stage-II, the State has made a fresh presentation, most likely to be the final one, before the Expert Appraisal Committee (EAC) of the Ministry of Environment and Forests on Monday.

The presentation given by the project authority has focused duly on the cost of environmental damage calculated as desired by the EAC adhering to the standard operating guidelines. It was the key aspect pointed out by the EAC while deferring the environmental clearance to the project in the previous sittings.

Authorities reiterated their commitment for implementation of the remediation plans and the community resource augmentation plans. It had already offered to provide a bank guarantee of Rs 142.49 crore for this purpose.

The cost of the implementation of the remediation plan was revised further hiking it by Rs 11 crore, according to sources.

Works on the irrigation component of the project were stalled as per the orders of the National Green Tribunal (NGT) issued on December 22, 2022. The State was permitted to go ahead with only the drinking water component of the project intended for utilisation of 7.15 TMC ft of water with the intervention of the Supreme Court.

The implementation of the irrigation components of the project could be pos-



The cost of the implementation of the remediation plan was revised further hiking it by Rs 11 crore, say sources.

### Adhering to guidelines

PROJECT AUTHORITY CALCULATED COSTS OF REMEDIATION AS DESIRED BY EAC

- Irrigation officials inspect pump house at Narlapur due for dry run
- All set for commissioning of the drinking water component
- Works on the irrigation component of the project were stalled as per the orders of NGT issued on December 22, 2022

State permitted to go ahead with only drinking water component of the project intended for utilisation of **7.15 TMC ft** of water with the intervention of Supreme Court

### CWC team to visit SRSP

STATE BUREAU  
Hyderabad

The Central Water Commission (CWC) team will be visiting the Sriram Sagar Project (SRSP) and Kad-dam project by the weekend to take stock of the structural and operational safety of dams. As desired by the CWC, the State has furnished detailed reports on the present condition of both projects recently.

The Sriram Sagar Project is one of the key irrigation projects of Telangana supporting irrigation in the drought-prone districts of the State for the last six decades.

The CWC team is likely to visit SRSP on July 29. It will make recommendations for dam rehabilitation if needed after taking stock of its present status.

### TS alerts CWC on Polavaram backwater effect

**HYDERABAD:** The State has made a fresh request to the Polavaram Project Authority (PPA) and Central Water Commission (CWC) to take steps for avoiding submergence in Telangana territory due to the backwater effect of the project. The State Engineer-in-Chief (General) C

Muralidhar wrote to the CEO of the Polavaram project as well as the CWC insisting on the need to keep all the 48 gates of the project and sluices open all through the water year.

The Supreme Court had ordered the PPA and the Central Water Commission on September 6 last year

to take initiatives to address the concerns raised by the riparian states including Telangana, Odisha and Chhattisgarh on the impact of the backwater of the project. He wanted the project authority to act by taking the orders of the apex court into cognizance.

sible only after obtaining environmental clearance. The project authorities are vigorously pursuing the clearance for the Stage II of the project which is under scrutiny in different wings of the Central Water Commission. The drinking water

component that has already received the necessary clearances is likely to be commissioned anytime in the first week of August.

Ten pumps of the project in the first two stages are ready for the dry run. The pump house at Narlapur

was inspected by a team of officials of the Irrigation department ahead of the dry run which is to be scheduled for the first week of August.

The scheme will support drinking water supply to over 1,220 villages in six districts in the region.



# Himachal floods: a man-made disaster

Why is climate change alone not to blame for unprecedented rain and floods in the State? What are the anthropogenic reasons? Should the development model be relooked? How have changes in the way dams are being built, shift in crop patterns, rush of tourism added to the problem?

## EXPLAINER

Tikender Singh Panwar

### The story so far:

**F**lash floods during this year's monsoon season have caused unprecedented damage to both lives and assets in Himachal Pradesh. The death toll has crossed 150, and the estimated total loss amounts to ₹10,000 crore. Although climate change is expected to have played a hand in causing the high precipitation leading to these flash floods, human induced disasters resulting from planned development have played a significant role in causing such colossal losses. In the last five years (before 2022), 1,550 people lost their lives and nearly 12,444 houses were damaged.

### Is climate change the only reason for the rain and floods?

The IPCC (Intergovernmental Panel on Climate Change) VI report has clearly stated that the Himalayas and coastal regions of India will be the hardest hit by climate change. In the Himalayas, there is a noticeable pattern of increased precipitation occurring in shorter periods of time. The India Meteorological Department data shows that the normal rainfall during this period is expected to be between 720mm and 750 mm. However, in certain instances, it has exceeded 888 mm in 2010 and 926.9 mm in 2018. This year, the precipitation so far has been attributed to the combined effect of the south-west monsoon with western disturbances. The total rainfall from June to date was 511 mm.

### Should the development model be reworked?

Apart from climate change, anthropogenic factors have also significantly contributed to the disaster. The State's development model initiated after it came into being in 1971 had been successful in transforming Himachal Pradesh into an exemplar of development for mountain States. This model, known as the Dr. Parmar model (named after the founding Chief Minister, Dr. Y.S. Parmar), focused on exemplary land reforms, robust state-led investment in social welfare, and a strong emphasis on human resources. These efforts resulted in Himachal Pradesh ranking second in social development indices. By the 1980s, electricity had reached every household, there was improved connectivity in remote areas through health care centres, many schools came up, there were major advancements in agriculture, and a shift towards the apple and off-season vegetable economies fostered both economic and social vibrancy.

However, the advent of liberalisation led to significant changes, with the Central government demanding stringent fiscal reforms and mountain States being forced to generate their own resources for fiscal management. What were these resources? The exploitation of natural resources, including forests, water, tourism, and cement production, became a major focus for development. This led to the rapid construction of hydropower projects, often causing damage to rivers and their ecosystems, widening of roads without proper geological and engineering assessments, expansion of cement plants altering land use patterns, and a shift in agricultural practices to cash crop economies that affected the landscape and river systems.

### Is building hydropower projects wrong?

The pursuit of hydropower projects became a dominant focus for hill States,



**Heavy downpour:** People walk through a bridge across River Beas, swollen due to rains in Kullu District, Himachal Pradesh on July 10. AP

with their capacity measured in terms of megawatts (MW) to attract investments. Notably, there was a significant shift in funding priorities of multilateral agencies. Prior to 2000, these agencies were opposed to financing large hydropower projects, but they changed their stance and started providing funding for such ventures, making finance readily available for these projects.

One of the main reasons for the devastating impact of floods in the region is the uncontrolled construction of these hydropower projects, which have essentially transformed mountain rivers into mere streams. The technology employed, known as "run of the river" dams, diverts water through tunnels burrowed into the mountains, and the excavated material (muck) is often disposed of along the riverbeds. During periods of higher precipitation or cloudbursts, the water returns to the river, carrying the dumped muck along with it. This destructive process is evident in rivers like Parvati, Beas and Sutlej, as well as many other small hydropower dams. Moreover, long tunnels spanning 150 km have been planned or commissioned on the Sutlej river causing significant harm to the entire ecosystem.

Currently, there are 168 hydropower projects in operation, generating 10,848 MW of electricity. Looking ahead, it is projected that by 2030, 1,088 hydropower projects will be commissioned to harness 22,640 MW of energy. This surge in hydropower projects raises concerns about the inevitability of impending disasters in the region.

### What about tourism?

The development-driven road expansion is aimed at promoting tourism and attracting a large number of visitors. The road-widening projects, often carried out

by the National Highway Authority of India (NHAI), involve transforming two-lane roads into four-lane roads and single lanes into two-lane roads. The development model follows a public-private-partnership (PPP) approach, emphasising the need to complete these projects rapidly. However, this has resulted in bypassing essential geological studies and mountain engineering skills.

Traditionally, mountainous regions are not cut with vertical slits but are terraced, minimising the damage to the environment. Unfortunately, in both the four-lane projects in Manali and Shimla, the mountains have been cut vertically, leading to massive landslides and damage to existing roads. Restoring these roads after such disasters is a time-consuming process, often taking months or even years. The consequences of such road expansions are evident during even normal rainfall, as it leads to slips and slides, amplifying the magnitude of the destruction during heavy rain or floods.

### How have cement plants harmed the environment?

The establishment of massive cement plants and extensive cutting of mountains in districts like Bilaspur, Solan, Chamba have resulted in significant land use changes that contribute to flash floods during rainfall. The cement plants alter the natural landscape, and the removal of vegetation leads to reduced capacity of land to absorb water.

### How have crop patterns changed?

A silent transformation is occurring in agriculture and horticulture patterns, leading to significant shift in both landholdings and produce. More farmers are now embracing a cash crop economy over traditional cereal farming. However,

this shift has implications for the transportation of these crops to markets within a short timeframe owing to their perishable nature.

In response to this need, roads are being constructed hastily without considering essential land cutting and gradient requirements. Modern excavators are employed in construction, but without creating proper drains or designated areas for dumping muck. Consequently, when it rains, the water finds its own path, carrying the dumped muck along with it and depositing it into the river ecosystem. As a result, even during normal rainfall, rivulets and rivers experience rapid swelling. It is worth noting that although the total designated road length in the State is around 1,753 km, the total length of all roads including the link and village roads is more than 40,000 km.

### What is the way out?

A Commission of Inquiry must be instituted to bring the major stakeholders – the people – on board and discuss both the policy framework failures, as well as the peculiar aspects of the projects undertaken.

A new architecture is required to empower local communities over their assets. The losses faced in the forms of culverts, village drains, small bridges, schools, other social infrastructure must be compensated; and this can be done if the assets are insured and the custodians are local communities. This will help to rebuild the assets quicker. With climate change a reality, humans should not add to the problem, but make adequate changes in infrastructure planning to avert disasters that the State has been witnessing since June.

Tikender Singh Panwar is former Deputy Mayor, Shimla, and an urban specialist.

## THE GIST

Flash floods during this year's monsoon season have caused unprecedented damage to both lives and assets in Himachal Pradesh. The death toll has crossed 150, and the estimated total loss amounts to ₹10,000 crore.

One of the main reasons for the devastating impact of floods in the region is the uncontrolled construction of hydropower projects, which have essentially transformed mountain rivers into mere streams.

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**The Hindu- 26- July-2023**



## Yamuna flows above danger mark, water level likely to rise

The Yamuna's water level in Delhi, which dipped slightly on Tuesday, is expected to rise again on Wednesday, the Central Water Commission said. The river continues to flow above the danger mark of 205.33 metres. Meanwhile, the BJP's Delhi unit protested near DDU Marg against the AAP government's "mismanagement" in dealing with the floods. Delhi BJP chief Virendra Sachdeva said the city had to suffer floods for the first time in 45 years due to the "negligence and corruption" on the part of the Delhi government.



Deccan Chronicle- 26- July-2023

# Hogenakkal swells with surplus discharge from Karnataka

**SANJEEVI ANANDAN | DC**  
DHARMAPURI, JULY. 25

Hogenakkal, located on the Tamil Nadu side, is experiencing a significant rise in water due to discharge from the upper riparian state of Karnataka.

The surplus water, released by Karnataka, has led to an inflow of over 5,000 cusecs at Hogenakkal, as recorded on Tuesday evening.

The surge in water flow comes as a result of heavy rainfall due to the southwest monsoon in Karnataka and Kerala, leading to the Hemavathi, Kabini and Harangi dams reaching their maximum storage capacity.

Consequently, the Krishnaraja Sagar dam in Mysore has initiated the process of receiving the surplus water being discharged from Harangi and Hemavathi.

The 'Karnataka state natural disaster monitoring centre' data



reveals that Harangi has an inflow of 19,343 cusecs, and as a safety measure, the outflow is being maintained at 21,166 cusecs to manage the excess water.

Hemavathi has an inflow of 25,888 cusecs, while outflow stands at a mere 200 cusecs as of Tuesday.

In an effort to manage the continuous inflow received by Krishnaraja Sagar dam, authorities have had to discharge over 2,000 cusecs to prevent the dams from reaching its maximum storage capacity. Substantial outflow from Kabini, which directly joins the Cauvery river, will support in increasing the

storage level at Mettur dam in Tamil Nadu.

As per the latest report, the storage level in Kabini has reached 696.13 metres in height, surpassing its maximum storage level of 695.07 metres. To regulate the water level, the outflow has been maintained at 11,250 cusecs, considering the inflow at Kabini is 25,896 cusecs.

On Tuesday evening, the Cauvery in Hogenakkal, Dharmapuri, started receiving the surplus discharge from Kabini and Krishnaraja Sagar (KRS). As measured by the Central Water Commission (CWC) at Bilingundulu, near Hogenakkal, the inflow has escalated to over 5,000 cusecs. Authorities are closely monitoring the situation and, if required, would implement necessary measures to ensure the safety of people along the course of the Cauvery on the Tamil Nadu side.

The New Indian Express- 26- July-2023

# Bhavani in spate, dam levels up in TN

Due to heavy rain in Nilgiris, Pillur dam level rose to 93.5ft against full capacity of 97.5ft in 24 hours

EXPRESS NEWS SERVICE @ Coimbatore

WITH south west monsoon rains intensifying, the water level in the Siruvani dam in Kerala is rising steadily. As a result, water released to Tamil Nadu has also increased.

According to TWAD board official, the level in the dam as on Tuesday was 20.93 ft against its capacity of 50 ft.

Last Tuesday (July 18) the level was 11.64 ft.

Sources said the water catchment areas of the dam received 75 mm of rainfall, the foothills received 46 mm of rainfall. IMD has forecast more rain in the next few days.

CCMC Commissioner M Prathap said the civic body has increased the volume of water supplied to the city to 76 MLD from 30 MLD as storage in Siruvani reservoir has crossed 20 feet. The frequency of supply has reduced to once in 14 days to seven days, he added.

## Pillur dam brimming

Following incessant rain in catchment in Nilgiris district, the Pillur dam is receiving inflow of 14,000 cusecs of water, as a result of which storage has increased to 93.5 feet from 86.5 feet in 24 hours. As the dam can hold water up to a maximum of 97.5 feet, PWD has started discharging 14,000 cusecs of water in the river Bhavani.

The Coimbatore district administration has issued flood alert and cautioned people living on the banks.

The discharge from Pillur pushed up water level in Bha-



Pillur dam discharged 14,000 cusecs of water into River Bhavani | EXPRESS

## Inflow to Mettur from Karnataka has not increased

Salem: Even as heavy rain lashed Karnataka, there was no significant rise in the storage in Mettur reservoir in Salem district. As on Tuesday morning, dam inflow was 119 cusecs and water level in the dam stood at 66.86 feet against the capacity of 120 feet. A total of 10,000 cusecs of water is released from the dam for irrigation in the Cauvery delta. WRD officials said water released from dams in Karnataka will reach Mettur on Tuesday night. "Water released from Kabini and Krishna Raja Sagar dams reached Biligundlu on Tuesday evening. From there it takes six hours for the water to reach Mettur dam. The water inflow for the dam can be specified only after that."

vani Sagar dam to 80 feet on Tuesday morning.

Water Resources Department officials said the dam received inflow of 7607 cusecs on Tuesday. The water level stood at 80.56 feet against the dam's capacity of 105 feet. On Monday, the water level was 79.54 feet. "On Tuesday, 1105 cusecs of water was released from the dam for irrigation and drinking water needs.

## Nilgiris

Rain continued to lash Nilgiris

district on Tuesday. In the 24 hours ending 8am on Tuesday, Avalanche recorded the maximum rain of 38 cm rainfall, followed by Upper Bhavani - 10.5cm, Devala - 9.3 cm, Cherangode - 9.1 cm, Panthalur - 7 cm, O Valley - 6.8 cm. Traffic was affected on O Valley road on Monday night after a tree fell near Keviparai.

In Kothagiri, two workers got struck in a landslide mud when they were working for construction on Tuesday. They were rescued immediately.

## K'taka rains: No water available for farmers yet

BANSY KALAPPA @ Bengaluru

WITH fairly good rainfall over the last few days, inflows into reservoirs have been encouraging. The farming community, which suffered due to delayed monsoon this year, has been demanding that water be released for their standing crops. But for the government, the priorities are drinking water and sufficient storage to last throughout the year.

Farmer leader Kurubur Shantakumar said, "I'm just now visiting our farmer leaders in Bagalkot and other adjoining areas where there is a need for water. The requirement is specific and it has a time frame. We are asking for water for the standing kharif crops."

A highly placed source in the water resources department said that unless the dams are 60 per cent full they cannot release water. They said the state has 13 major reservoirs, including Tungabhadra, Bhadra, Ghataprabha, KRS, Hemavathi, Malaprabha, Varahi, Narayanpura, Kabini and Harangi, and not all of them have reached 60 per cent capacity. It may not be prudent to release water for irrigation now, he explained.

One of the top officers said, "There is a gag order on our department to speak about water."



Dainik Bhaskar- 26- July-2023

# केन-बेतवा प्रोजेक्ट : वन विभाग को जंगल के बदले दूसरी जमीन देने के बजाय वन भूमि ही दे दी

छतरपुर-पन्ना कलेक्टर ने वन विभाग को दी हैं 5479 हेक्टेयर जमीन उसमें 2019 हेक्टेयर पहले से ही वन भूमि पोलिटिकल रिपोर्टर | भोपाल

भारत के पहले नदी जोड़ो परियोजना केन-बेतवा लिंक प्रोजेक्ट के कारण प्रदेश में जमीनों के रिकॉर्ड की ओवरलैपिंग का बड़ा मामला उजागर हुआ है। इस प्रोजेक्ट के कारण पन्ना टाइगर रिजर्व समेत वन विभाग की कुल 6017 हेक्टेयर जमीन डूब या निर्माण के कारण प्रभावित हो रही है। इसके बदले में वन विभाग को पन्ना और छतरपुर जिलों में उपलब्ध 5479.63 हेक्टेयर सरकारी राजस्व भूमि वन विभाग के ट्रांसफर की गई है। इस जमीन के मिलने के बाद वन विभाग ने दावा किया है कि उसे

## 28-29 को भोपाल में होगी टेंडर मूल्यांकन कमेटी की बैठक

केन-बेतवा प्रोजेक्ट के दौधन डेम निर्माण के लिए 25 जुलाई को भोपाल में टेक्निकल एडवाइजरी कमेटी और 28 जुलाई को टेंडर ई-क्वैलेशन कमेटी की बैठक होने जा रही है। बैठक में उन सभी सुझावों को प्रोजेक्ट में शामिल करने पर अंतिम विचार होगा, जो प्रोजेक्ट पर काम करने की इच्छुक देशभर की निर्माण कंपनियों की ओर से दिए गए हैं।

सिर्फ 3460 हेक्टेयर राजस्व भूमि ही मौके पर मिली है। कलेक्टरों ने जिस 5479.63 हेक्टेयर जमीन हैंडओवर का रिकॉर्ड सौंपा है, उसमें से 2019 हेक्टेयर से अधिक जमीन वन विभाग की ही है। इस पर पहले से जंगल है। वन विभाग के इस दावे के बाद अब पन्ना और छतरपुर जिलों में जमीनों के रिकॉर्ड को फिर से खंगाला जा रहा है, दोनों जिलों के कलेक्टरों की सरकारी जमीनों के रिकॉर्ड वेरिफाई करने के निर्देश दिए गए हैं।

गौरतलब है कि केन नदी पर दौधन डेम

का निर्माण पन्ना टाइगर रिजर्व (पीटीआर) के कोर क्षेत्र के बीच में हो रहा है। जिसमें पीटीआर के कोर का 4141 हेक्टेयर हिस्सा डूब रहा है। इसके अलावा 1876 हेक्टेयर का बफर और सामान्य जंगल भी प्रभावित हो रहा है। इसी की भरपाई के लिए वन विभाग को पीटीआर में शामिल करने राज्य सरकार को दूसरी राजस्व जमीन देनी है। नियमानुसार जितना जंगल प्रभावित होगा, उतनी ही गैर वन भूमि बदले में शासन को जंगल के लिए देनी होगी।

## सूखी जमीन सिंचित होगी

केन नदी पर बनने वाले दौधड़ बांध से ही 221 किमी लंबी नहर निकलेगी, जिससे केन का पानी बेतवा नदी में डायवर्ट होगा। नहर से मप्र-उप्र की 10.62 लाख हेक्टेयर सूखी जमीन सिंचित हो जाएगी।

## वन विभाग ने 3460 हेक्टेयर जमीन मिलना ही कंसीडर किया

छतरपुर और पन्ना में वन विभाग के हस्तांतरित की गई 5479.63 हेक्टेयर भूमि में 3460 हेक्टेयर जमीन ही असल में राजस्व की है, बाकी 2019 हेक्टेयर पहले से ही वन भूमि है। इसलिए वन विभाग ने 3460 हेक्टेयर जमीन मिलना ही कंसीडर किया है। - सुनील अग्रवाल, पोसीसीएफ लैंड मैनेजमेंट, मप्र वन विभाग