Assam News Articles Compilation
By ICSF
Assam: Environmental scientist rears fish in rooftop pond in Guwahati


Environmental scientist Amarjyoti Kashyap has innovated the concept of fishing in urban homes by converting 1000 sq ft of the terrace area in his residential building into a natural pond and recreation centre. Kashyap has ingeniously converted the area of his terrace into a breeding ground of different types of fishes and promoted the idea of rooftop fishing directly from his two-storey residential building located on Hatigaon area in Guwahati. He has been rearing and cultivating fish in his own residence for quite sometime. Rooftop fishing is a great method of urban farming that can help urban dwellers in saving money as well as earn additional income by selling the fishes bred in rooftop ponds. Kashyap who was a former environmental science professor also associated with an NGO Environ which addresses issues of environmental degradation and work for economic development in the northeastern region.

The environmental scientist had invented a waste assimilator due to which he won the Millennium Alliance Innovation Award entitled “Solid Waste Resource Management and Environmental Sanitation” in 2017. Kashyap’s invention of waste assimilator has been chosen as the only innovation under the Water and Sanitation segment in 2017 by Millenium Alliance. Millenium Alliance is a joint platform of many leading global organizations which identify breakthrough research innovations carried out in India that could help in addressing various developmental challenges of the country. The waste assimilator is a device that can convert solid biodegradable kitchen waste into useful organic compost that can be used for growing different kinds of crops.

Assam and West Bengal: Bank erosion in the Brahmaputra valley – impact and causes


The entire Brahmaputra valley is at present reeling under a devastating flood. The peak flow of the Brahmaputra during this wave of flood at Pandu was about 39000 cubic meters per sec (cumec). Statistically, this kind of flood is quite common and happens almost every 10 years. The highest ever recorded flow at Pandu is about 72000 cumec. It is difficult to imagine the kind of devastation such a flood may cause today. Lurking behind this flood is its twin brother – the erosion waiting to strike once the flood recedes. It is even a more serious problem than floods in the Brahmaputra valley. It causes immense damages to life and property. Farmers in the river bank are turned into paupers overnight through a permanent loss of their land. Unlike floods, which have many benefits as well, such as enriching the soil, recharge of groundwater, increased
fish population, etc, erosion has no good side and is feared by everyone living on the river banks of the valley.

Complete and permanent immunity from erosion in Brahmaputra valley is a utopian concept. This is because the entire Brahmaputra valley is formed of river deposits (alluviums) brought down by the river and its tributaries. Changes in a river course through erosion and deposition in its alluvial plain is a natural process and cannot be stopped permanently. To assess the extent of erosion from 1988 to 2015, a bank line study of the river was carried out from satellite imagery by Brahmaputra Board in 2016. The study revealed that there has been an erosion of 798 sq km against the deposition of only 208 sq km during this period. Even this deposited land has no immediate value. Such land can be utilized for agricultural purposes only after the formation of the topsoil, which generally takes decades.

Comparative bank line studies on the Brahmaputra have also been carried out by other reputed organizations for different periods and in the Master Plan of the Brahmaputra prepared by the Brahmaputra Board from 1930 to 1967. All such studies indicate erosion to be much higher than land formation from the year 1950 onwards in the Brahmaputra valley. This implies a trend of an increased riverine area and decreased habitable land in the valley. It also indicates an increased instability and higher erosion rate in the river with time which is a worrisome situation. A total of 2534 villages were obliterated and 90726 families rendered homeless during the same period. Thus, the average erosion in this period by the Brahmaputra has been about 75 sq km per year with 5670 families losing their land annually. The Sadiya town was completely eroded away due to erosion after the 1950 earthquake. In 1954, a major part of Dibrugarh and Palasbari towns were eroded by the Brahmaputra.

The Dibrugarh town could be saved through the intervention of no less a person than the late Jawaharlal Nehru, the then Prime Minister of India, who visited Dibrugarh in 1954. Severe erosions still continue in a number of locations along the banks of Brahmaputra and many of its tributaries. Large damages to private and public properties including roads, bridges, embankments, buildings, power transportation infrastructures, homesteads, and cultivated land happen every year. In addition, intangible losses in the form of loss of forest areas, loss of daily wages/wasted time due to communication breaches are a common feature in the valley. Main causes of bank Erosion: Floods and erosion are interrelated. Floods are intricately linked to causes of erosion whereas erosion leads to floods in many cases. However, the basic reason for erosion in the Brahmaputra is due to the fact that it is an extremely braided river. The characteristic features of a braided river configuration such as the Brahmaputra are -a wide river, unstable and poorly defined banks and shallow depth of water.

The braided watercourse consists of a number of entwined channels, divided by islands, which meet, cross and separate again. During floods, the channels are combined, most of the sand bars get submerged and the river appears to be a wide straight unbroken channel. The main causes
which seem to bring about braiding of the Brahmaputra river are: i. Steep slopes: For a river of its size, the river slope of Brahmaputra is considered by experts as steep. Enormous kinetic energy is generated while this huge mass of water flows. The energy generated is higher when the slope is steeper. To dissipate this energy, the river attacks its banks, erodes and widens. The channels meander between the banks and try to lengthen its path thereby making the slope flatter to attain a regime condition. This leads to the braiding of the river. ii. Abundant sediment and bedload: Amongst the largest rivers in the world, Brahmaputra carries the highest sediment. Almost the entire quantity of it is carried by the river during the rainy season. The main stem Siang and numerous tributaries bring down a large amount of silt along with heavier bedload particles from the hills.

On entering the plains of the valley, the river slopes flatten immediately resulting in a drastic reduction of the velocity. The river loses kinetic energy and is unable to carry forward the heavy silt load. Initially, it starts depositing the boulders, pebbles and coarse sediments. As the river moves downstream through the valley, the slope flattens further resulting in the settlement of even finer sediments/silts. The deposited sediments which form the bedload of the river are also gradually carried downstream by the river but at a much slower pace than the lighter suspended sediments. Whenever there is a large flow, bedload propagation becomes more active. As soon as flow reduces, the bedload settles down which gets deposited on the river bed and blocks the flow. Unable to find its way forward, the flowing water moves in a lateral direction and attacks the banks. In the process, the river either erodes the banks or forms avulsed channels to make its way, thereby further braiding the river. iii. Erodible banks: Except for a few nodes where the banks on either side are stable, the Brahmaputra banks are not well defined all along its length.

The bank materials, other than at these nodes and hard points (rock outcrops) are made of silty or sandy loam in the top layer followed by silty clayey loam or clayey loam in the deeper portions. These are easily erodible materials. Therefore, the river banks keep shifting due to erosion as well as deposition of sediment. The condition also encourages the formation of distributaries by eroding the high banks (levees) and entering into low lying areas in the countryside thereby braiding the river. iv. A highly variable discharge (flow per unit time): The discharge of Brahmaputra varies from 10 to 20 times between its lean periods and normal monsoon periods. During the monsoon itself, there is a wide variation of flow. The discharge is much higher during the intermittent waves of floods in this period. Along with the heavy siltload present, this variation of flow leads to the instability and braiding of the river. Nature adjusts its hydraulic parameters at a given cross-section of a river.

It is done in a manner so that the water and sediment load coming from the upstream is transferred to the downstream in the most efficient way with minimum expenditure of energy. Given the above parameters, nature has chosen the braided river plan form for the Brahmaputra river as the most suitable and efficient pattern to execute the transport of its water and sediment. For the same reason, many of the north bank tributaries of the Brahmaputra originating in the
Himalayas such as Lohit, Dibang, Subansiri, Jiaboreli, Manas, Aie, Sankosh, etc have a highly braided form in the valley. Therefore, all these rivers have serious bank erosion problems. But the south bank tributaries have meandering forms in the valley and are much less problematic from the point of bank erosion. This is because they have a much flatter slope and carries about one-fifth of silt load to that of Himalayan rivers for a unit area of the catchment.

**Assam: Second wave of Assam floods claims 4 more lives; Toll rises to 86**


Even as the rainfall eases and waters recede, the deadly floods in Assam claimed four more lives on Sunday, taking the overall death toll to 86. According to a bulletin released Monday evening by the Assam state disaster management authority (ASDMA), 12.24 lakh people are currently affected by floods. The highest number of victims is in Barpeta (8.19 lakh), Morigaon (2.01 lakh) and Goalpara (over 1 lakh) districts. A total of 1113 villages have been hit by floods. The bulletin also adds that 14,727 inmates are currently seeking shelter at 322 relief camps. Assam has been facing dire floods since around July 10, when heavy monsoon rainfall caused the Brahmaputra, and many of its tributaries, to flood their banks.

The rising waters inundated thousands of villages and displaced lakhs of people. Even animals were not spared. Around 220 animals are reported dead at Kaziranga National Park. This figure includes 20 one-horned rhinos as well as hog deer and other animals. On Monday too, the Brahmaputra was flowing above the danger level at Neamatighat in Jorhat and Dhubri. the Dhansiri River was above the danger mark at Numaligarh, the Jia Bharali in Sonitpur, and the Kushiyara at Karimganj, said the Central Water Commission. The IMD has forecast moderate rain/thundershower over Assam and other parts of the northeast for the coming days. However, rainfall on the scale of the past few weeks is not expected in coming days.

**Assam: China, Bhutan or deforestation role in Assam flood?**


Streamflow or rainfall data shared by China and Bhutan during the Monsoon makes very few in downstream Assam happy. The growing volume of water and the silt flowing down through the Brahmaputra originating in China and many of its tributaries from Bhutan is blamed for the flood, a problem aggravating almost every year. “The Centre is blamed for not providing sufficient funds for floods in Assam. We have a sufficient amount of money for relief work but do we have an action plan in hand as yet for a permanent solution? Look at the volume of water that flowed down from China this time too. I am not saying China released excess water but we must keep this factor in mind before blaming the government,” Assam minister Himanta Biswa
Sarma told reporters here recently, when flood wreaked havoc, affecting over 58 lakh people in 31 of the state’s 33 districts.

Although flood is an annual problem, the scale of devastation has increased in the past few years - nearly 100 deaths during every flood, economic loss of at least Rs 5,000 crore and loss of 8,000 hectares of landmass due to bank erosion. This has prompted a call from many here to persuade China to form a joint action plan to tame the Brahmaputra and a similar mechanism for the rivers flowing down the hills of Bhutan causing devastation in western Assam districts. The Brahmaputra, the world's second-biggest river, originates in the Tibet region of China. The river flows through Arunachal Pradesh and Assam before it drains out into the Bay of Bengal through Bangladesh. “There are reports that China has constructed several big dams in the upper reaches of the Brahmaputra and so the flow of water is more when excess water is released suddenly.

The water level in the Siang (the Brahmaputra is called Siang in Arunachal) suddenly drops during winter,” said a student leader in Arunachal Pradesh. Panic gripped the frontier state when the water level in the Siang suddenly dropped in October last year. As per the agreements, China and Bhutan provide river flow or rainfall data to India but the two countries lack a joint mechanism to manage the trans-boundary rivers. Some experts, however, blame the forest cover loss in Assam and Arunachal Pradesh more than the water from China or Bhutan. “The Brahmaputra basin receives an average annual rainfall of about 1500 mm, whereas the same is barely 400 mm in the Tibet region. Thus, bulk of the flood flows are generated within the watershed areas of India, while the Yarlung Tsangpo mainly conveys the snow melt stream flow mostly from the Himalayan glaciers,” Nayan Sharma, an adjunct professor of IIT-Roorkee, told DH.

“The extensive loss of forest cover in the North-east has significantly reduced the time of concentration of overland rainwater, which caused hike in flood water accumulation in the river system at a faster pace than earlier. The increased silt load in excess of transport capacity of streams gets deposited in river beds, which decreases the flood-carrying capacity,” he said, stressing on massive afforestation and soil conservation programme in the watersheds, construction of multi-purpose storage dams using advanced technology and channel improvement for the braided Brahmaputra and its tributaries. According to a report of Global Forest Watch, India lost 16,744 sq km of forest cover between 2000 and 2018, of which 12,523 sq km, a whopping 74.7%, was from the North-eastern states.

**Assam and Bihar: Death toll in Assam, Bihar floods reaches 174**


The death toll in Bihar and Assam floods mounted to 174, with a total of 1.09 crore people being affected by the calamity in the two states, officials said. Though water levels have started
receding in several districts of the two states, both reported two deaths each since Monday. With both the casualties taking place in Madhubani district of Bihar, the toll in the state reached 106. In Assam, the number of deaths touched 68 as two more people died in Morigaon and Golaghat districts since Monday. A total of 28.01 lakh people were affected in 19 of the 33 districts of the northeastern state, officials said in Guwahati. Though the flood waters have receded in Biswanath and Karbi Anglong districts, the deluge hit Lakhimpur and Baksa again, the Assam State Disaster Management Authority (ASDMA) said.

In the Kaziranga National Park in Golaghat district the death toll of animals rose to 204, including 15 rhinos, since July 13, it said. In Bihar, water levels have started receding in several districts and consequently the number of relief camps and those taking shelter at these have also gone down considerably, Disaster Management Department officials said. A population of 80.55 lakh in 12 districts are still affected in the state. The number of relief camps on Tuesday was 54, as against more than 130 a week ago and the number of people staying at those places has gone down from over one lakh to 29,400, the officials said.

**Assam: Initiatives to enhance fish productivity in Hailakandi**


Development of water bodies to boost fish productivity in Hailakandi district will begin soon. District Fishery Development Officer, TK Sinha informed that development of water bodies under SOPD 2019-20 for SCSP cooperative societies, community and groups in SC areas will start soon, the process of which is underway. As against the project cost of Rs 7 lakh per hectare, the State government will bear Rs 5.60 lakh (80 per cent) while the beneficiaries’ share will be Rs 1.40 lakh only. The total number of beneficiaries should consist of 10-15 against one community tank measuring 1.0 hectare to 5.0 hectare. Sinha informed that the government would release its share only after the execution of the construction work from the beneficiaries’ resources.

Apart from this, work will also commence soon on conversion of low lying areas into community tank for fish culture under RKVY for the year 2018-19. Sinha informed that interested group of farmers, youth, SHGs or any other community based organisations, including cooperative societies could seek financial assistance from the government under the scheme. Of the total unit cost of Rs 5 lakh per hectare, the State government’s share and the beneficiaries’ share will be the same i.e. Rs 2.50 lakh per hectare. As regards inputs cost of Rs 1.50 lakh per hectare, the State government as well as the beneficiaries’ share will be Rs 0.75 lakh per hectare each.

**Assam: High-level team of Fisheries department inspects schemes implemented in Darrang**
A high-level team of the officials of the State Fisheries Department, accompanied by world fish expert Dr. Trong from Malaysia and Dr. Suresh, on Monday visited various ongoing schemes of the department being implemented in Darrang district under different programmes of the Fisheries department. Director of Fisheries Padma Nath Das along with other senior officials of the department led the team to make an on-the-spot study of the successful implementation of the schemes which are likely to benefit the fish entrepreneurs of the district. The team inspected different schemes being implemented under RIDF, RJDI, APART and SOPD and expressed satisfaction over the proper execution and implementation of the schemes.

Significantly, the team detected fishing in natural water bodies with fishing nets which is a violation of the provisions of the relevant laws and also seized several fishing nets from the violators. The team also took part in a number of awareness camps to create awareness on the need of honouring the provisions of the rules concerned only for the greater interest of the fish farmers. During their visit to the Upahupara fish farm at Mangaldai, the team examined the quality of the fish seed produced at the farm. Later, talking to the media, Director of Fisheries Padma Nath Das said that the department had already taken up several major schemes under APART for the development of several fish farms of the State so that the required fish seeds could be made available round-the-clock. He also assured to take up some positive steps to encourage the fish farmers of the State so that they could take up fishery as their livelihood. District Fishery Development Officer Tapan Kumar Das and Nodal Officer of APART, Dr. Sanjay Sarma also accompanied the team during their day-long visit. The beneficiaries at Upahupara Fish Farm earlier extended a hearty welcome to the visiting team with a phulam Bihuwan in the traditional way.

**Assam: Guwahati fish seller lands in trouble after selling 28-kg Barali fish**

A gigantic fish, whose presence at a Guwahati market had drawn hordes of buyers on Thursday, has landed its seller into trouble. Taking cognizance of social media posts on the sale of the 28-kg “Barali” fish at Ulubari fish market, Assam’s department of fisheries has ordered a probe to find out as to how the fish was caught despite a ban on fishing. The ban was imposed as it is the breeding season. The department directed the Kamrup district fishery development officer to conduct the probe and initiate action against the offenders. Citing the ban on fishing, some social media users had demanded action against those involved in catching and selling the fish. Dozens of people had thronged the fish market in the heart of Guwahati on Thursday when local news
channels reported the sale of the big fish. Some had come to buy it while others had come to have a glimpse of it.

The fish seller, Shyamal, had bought it for Rs.17000 from a fish dealer and made a profit of around Rs.6000 to Rs.7000 by selling it at Rs.1000 to Rs.1200 a kg. His joys, however, turned into a nightmare as he now anticipates police action against him. A team of officials of the department of fisheries visited the market on Friday and grilled him. “I was told a case has been filed but it’s not my fault as I didn’t catch it from the river. I had bought it for Rs.17,000 from a fish dealer at Kolongpar Ghat in Sonapur. I learnt that a team of officials of the department of fisheries left for the place to interrogate the fish dealer,” Shyamal told this newspaper. He added: “The head of the fish weighed seven kg which I sold at Rs.200-Rs.300 a kg. I had told TV journalists it was a Brahmaputra fish but later, I came to know it was of river Kolong,” he said.

**Assam: Fishing restrictions only on papers; Bangladesh imposes stringent ban**

[https://nenow.in/neighbour/assam-fishing-restrictions-only-on-papers-bangladesh-imposes-stringent-ban.html](https://nenow.in/neighbour/assam-fishing-restrictions-only-on-papers-bangladesh-imposes-stringent-ban.html)

The Assam Government issues an order around this time of the year regarding certain directives over fishing, but in reality the picture painted is totally opposite. It has become a customary practice of the Directorate of Fisheries banning fishing during the breeding season. This year also, the Fisheries Department has issued guidelines to the district fishery development officers particularly in the districts of Barpeta, Cachar, Hailakandi, Dibrugarh, Tinsukia, Sivasagar, Jorhat, Golaghat, Sonitpur, Lakhimpur, Dhemaji, Nagaon, Morigaon, Kamrup, Nalbari, Bongaigaon, Karbi Anglong, Dima Hasao, Udalguri, Chirang, Dhubri, Goalpara, Darrang, Baksa, Kokrajhar and Karimganj. As per the directives under the Assam Fishery Rules, 1953, there are prohibitions over use of Borjal/Mahajal or Fasijal or any type of nets with meshes less than seven cm/14 cm during breeding season. Moreover, there is prohibition on catching of brood fish of certain species in any fishery. There is also prohibition of catching and killing by any method, of fish for any purpose including consumption and selling of undersized fish of certain species during this period.

These are aimed at ensuing natural breeding, propagation and growth of fish in all fisheries and natural water bodies. However, all these remain in papers and rampant fishing goes on in every nook and corners of the State every year. The images tell it all. Local markets and make-shift shops mushrooming across the State openly sell fishes with eggs during breeding season across the State under the very nose of the administration. But on the contrary, the neighbouring country of Bangladesh has come up with strict measures to ensure breeding of fish. Bangladesh has banned fishing off its coast for 65 days from May 20 till July 23 to try and boost depleted fish stocks. During this period all types of fishing vessels would be covered by the ban and coast guards have been specifically directed to enforce it along Bay of Bengal.
Bangladesh is known for its fish exports, especially the king of all fishes – the majestic Hilsa. There were times when the famed Hilsa of river Padma after its breeding season in the Bay of Bengal even came downstream to Assam – particularly to Morigaon and Mangaldai. But over the years due to reckless fishing, the production of Hilsa in Bangladesh has depleted in enormous proportion. There were short-term bans on commercial fishing in the past in the neighboring country, but this is the first time that all fishing boats, including local fishermen, have been banned for a lengthy period. It is about time that the Assam Government too come up with stringent measures to ensure that ban on fishing during breeding season is implemented in reality to save various local species of fishes in the State.

Assam: Know the Asia™s Largest Dry Fish Market of Assam

https://www.northeasttoday.in/know-the-asias-largest-dry-fish-market-of-assam/

What is dry fish?: Dried fish are short-term edibles in which water loss and salt concentration ensure preservation. It also consists of smoking and salting of the fish. The fermented fish is a well known strategy of food preservation in the northeast region of India. The fermentation technology evolved in the north east by compulsion of people. Popular fermented fish products of this region of India include Shidal and lonailish. Fermented fish contributes a regular menu in the diets of people of almost all categories of the region. The Market: Situated in the state of Assam, the market is just 50 kms away from the economic capital of the state Guwahati. It is towards the eastern side of Assam. It is situated in the place called Jagiroad in the Morigaon District. Jagiroad is famous for its dry fish market. This market is known as the largest dry fish market in Asia.

Approximately around Rs 40 cr transactions take place in the market. The market functions in the industrial town where high amount of business deals take place. Origin: During the late 1940’s there used to be a Sunday market functioning in Silchar. People from different places like karimganj and shillong used to come to this market. However during the India Pakistan partition a big market in Dhaka closed down which resulted in the affecting of the Silchar market. Therefore some traders from karimganj came to Jagiroad to check the availability of setting up a market as it was well connected by both train and road transports. The market is situated near the Jagiroad railway station. At last they started a Sunday market somewhere after partition. In the beginning the market started catering to local needs. Gradually neighboring states like Manipur, Nagaland, Tripura and Meghalaya entered the Jagiroad market making it an important dry fish trading center of north east. Functioning: Area wise this market is not a big place consisting of an approximate of 100 shops operated by the Mahaldars.

This is the only market where the maximum transaction of dry fish takes place in Asia. The market generally operates 3 days in a week from Thursday to Saturday. An approximate of 1500
people is associated with this trade during the early days. Fishes from all over India comes to the market. Apart from Assam, different varieties of dry fish from Uttar Pradesh, Andhra Pradesh, Maharashtra, Porbandar in Gujarat, Gorakhpur and Lucknow in Uttar Pradesh, Teliamura in Tripura, and Siliguri in West Bengal are supplied. The market also conducts international business by exporting to countries like Bhutan, Malaysia, Singapore and some other Southeast Asian countries. Every year upto 1000-1200 trucks come to the market every year. The price of the fish depends upon the quality and size of the fish. During the peak season the sales go upto 70% and during the off season it remains upto 30%.

The market which is situated near Jagiroad Railway Station is well connected by the railways and national highway no 37. The trading is controlled by the Jagiroad dry fish merchants association. The association also pays a substantial amount of money as taxes and also donates part of its profit to school, colleges, organizations and various sports activities. Growth: “The market has witnessed around 20 percent growth in the last 20 years,” says Kamal Dey, the president of Jagiroad Dry Fish Merchants’ Association which runs the market. The market, set up in 1958, has 150 shops at present. About 4000 people are either directly or indirectly engaged with the market which covers an area of 30 acres. The market receives and supplies dry fish to various parts in trucks, and in trains to and fro Jagiroad railway station, which is located just behind the market.

The peak market season is January to March and it remains closed during the monsoon season. One special kind of dried fish sold in the market was known as “Sindal”. This is the costliest item of dried fish and considered as anti malarial by local population. This is prepared by putting the smaller fishes in bamboo cylinder and then sundried. Among the fresh water groups of dried fish, most commonly found were Channapunctatus, Aorichthysseenghala, Puntiusophore, Amblypharyngodonmola, Notopteruschitala, Wallagoattu, Labeorohita etc. The marine species like Bombay duck and shrimps were also found in the market. Dried fishes are first assembled at Jagiroad wholesale market and after their arrival; they were further dried and sorted out quality wise. Controversy: The dry fish market has become a cause for concern for the people there. The market, after exemption from GST, is expanding, thereby covering a large residential area. The market usually occupies both sides of the busy Station Road leading to traffic chaos.

The Station Road leads to a telecommunications office, post office, Nakhola High School and many residential units. During market days, particularly on Thursday, Friday and Saturday, the road remains blocked by dry fish-laden heavy vehicles and even a pedestrian can hardly move on the road. The market is developing haphazardly with no proper planning of drainage and sewage system and as such, is creating an unhygienic environment in the area. Street dogs and crows carry the rotten dry fish and scatter them here and there. The odd smell of dry fish also causes discontentment among the people travelling or residing there. The people have urged the district authority to shift the market to the outskirts of the town and to develop it in a scientific manner.
Conclusion: All in all the market has become a great hub of attraction. It is because the dry fish is an authentic food of the north east. People of north east love their dry fish and they add this food item in their every menu. Secondly this market has given great boost to employment for the local people residing there. Many families are running just because their family members are working hard in the market. Thirdly this market leads to capital generation. The export and import, all these processes is making this market a big name in the global platform and that’s why this market has already been termed as Asia’s Largest Dry Fish Market already.

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proportion. There were short-term bans on commercial fishing in the past in the neighbouring
country, but this is the first time that all fishing boats, including local fishermen, have been
banned for a lengthy period. It is about time that the Assam Government too come up with
stringent measures to ensure that ban on fishing during breeding season is implemented in reality
to save various local species of fishes in the State.

Assam: Fishing nets seized during an operation by the Fishery Department of Lakhimpur

department-of-lakhimpur/

In view to making people aware about the enforcement of fish related acts in the district, the
Fishery Department of Lakhimpur launched operation in various places under Lakhimpur
development block on Sunday. The District Information and Public Relation Officer, through a
press release, on Tuesday informed that the operation was launched under Assam Fishery Rule,
1953 (as amended in 2005) and Assam Fish Seed Act, 2005 (Amended) by the District Fishery
Officer and Task Force, OC of North Lakhimpur Police Station, Aditya Prakash Deori in the
presence of executive magistrate Lambit Hazarika. During the operation, different kinds of
fishing nets were seized from Dhalghat, Ghagar under the development block.

Similar operations were launched at various fish markets of North Lakhimpur town, such as
Daily Market, Milan Nagar, CD Road and the fish market near Tyag Kshetra. In addition to
District Fishery Officer, Fishery Office employees Pradip Tako, Haren Medhi, Bhogeswar
Saikia, Guru Charan Boro, Kushal Baruah were present in the operation. Section 144 CrPC has
been promulgated in Lakhimpur to control the unabated catching of fishes in the district during
the breeding season in order to safeguard the fishes and spawn.

Assam: Egg-laden fish openly sold in Sivasagar markets despite a ban under the Assam
Fishery Rule 2005

a-ban-under-the-assam-fishery-rule-2005/

Despite a ban on fishing during the months of May, June and July with fishing nets of certain
gauge under the Assam Fishery Rule 2005, egg-laden fish are being sold everywhere within the
district. Sivasagar fish markets at the Central Market and Station Chariali Market are abound
with such egg-laden fish as fishing goes on in the local water bodies, rivers and fisheries. Though
the district administration made an announcement in this regard, but no one seems to be serious
about the ban imposed, which the socially conscious section of people here opine may lead to an
ecological imbalance and wipe out the indigenous fish species. As incessant rainfall during the
last several days has inundated the low-lying areas, a section of people have resorted to fishing
indiscriminately. Hence, it is felt that the district administration should take stronger measures to check illegal fishing.

**Assam: Capacity-building programme on composite fish farming under way in Tinsukia**


A four-day capacity-building programme on composite fish farming organized by JEEVA-SURAKSHA, a Sivasagar-based NGO in collaboration with DHSK College, Dibrugarh, began on Monday at the auditorium of DHSK College. Designed for the youths of the Mising community, the programme has been sponsored by Mising Autonomous Council, Gogamukh, Dhemaji. A total of 30 participants from Dehing Sessa of Dibrugarh district are participating in the programme. The programme was inaugurated by Dr Sashi Kanta Saikia, Principal of DHSK College, in presence of Prashanta Bori, Executive Councillor of Mising Autonomous Council (MAC), Lipy Deori, DDM, NABARD, Dibrugarh, Dr Sanjib Borgogain, Principal, HCDC College, Nitaipukhuri, Dr. Sultana Hazarika and Dr Mridul Sharma, Professors, DHSK College. Technically sound manpower always being a constraint in developing fisheries in the Northeast, Dr Ranjita Bania, Fisheries Biologist and course director of the programme while welcoming the participants, said the objective of the programme was to enhance capacity building in fisheries sector of Assam through entrepreneurship development.

In his address, Prashanta Bori as chief guest urged the youth to come forward to take up challenges to develop the rural economy through the fisheries development. He also highlighted the plan of MAC to develop Romai and Charaihabi village of Dibrugarh as model fish village in collaboration with Jeeva Suraksha. He also declared the support of Rs 20,000 each for the trained persons in this financial year. DDM of NABARD, Lipy Deori appreciated the efforts of Jeeva Suraksha for developing the fisheries sector of Assam and explained about the financial issues related to aquaculture. She also highlighted the role of finance, skill and willingness of farmers to grow in this sector. “The main challenge in front of science is to double the production. Moreover, the investment in aquaculture sector gives much better return compared to other businesses,” she added.

**Assam: Fish export from Assam can boost economy: Sarbananda Sonowal**


“Assam must become self-reliant in fish production. Fishery sector has immense potential and we must vigorously engage in it for deriving maximum benefits. Assam is blessed with abundant water resources and we have the capacity to become the biggest producer and exporter of fish in the country. But for that, we must adopt the latest scientific technologies for augmenting our
production.” Chief Minister Sarbananda Sonowal said while taking part in the programme to distribute appointment letters to 35 Fishery Development Officers under Fisheries Department at the conference hall of Chief Minister’s Secretariat, Janata Bhawan on Thursday. Calling on the new appointees to strive hard to enable the fishermen and producers of the state a life of dignity, Sonowal directed the Fishery Department to prepare a roadmap for the development of fishery sector to fulfil the fish requirement of state without resorting to imports.

Hoping that the newly appointed officers would be able to make positive change in the department by infusing fresh thoughts and knowledge, the chief minister urged them to dedicate themselves to the cause of making the state a top fish exporter in near future. Urging the fish producers of the state to go for value addition of the fish produced in the state to cater to the international markets, the chief minister appreciated the fishery department for increasing the fish production to the tune of 20000 metric tonne in 2017-18 and he directed the department to work for increasing production even further so that fish import can be stopped. He also said that if the newly appointed officers of the department cannot help the fish farmers to increase production than their degrees in fishery sciences would be of little value. The infinite potential of Brahmaputra and Barak rivers must be harnessed to achieve fast paced development of state and vast presence of natural water-bodies must be properly utilised for growing the fishery sector, the chief minister said. He also called upon the new appointees to stay away from corruption and work for the development of fishery sector with all sincerity. Minister for Fishery Department Parimal Suklabaidya, Media Adviser to the Chief Minister Hrishikesh Goswami, Legal Adviser to the Chief Minister Shanatanu Bharali, Cice Chairman of ATDC Nabadeep Kalita were also present in the programme among others.

Assam: Govt. to Focus on Fisheries, Skill Development & Introduction of New Technologies: Bijoya Chakravarty


With the Central Government focusing on the development of Northeast India in recent years, the region has been witnessing a momentum in trade and commerce, with agriculture leading the way. With tourism already a booming industry in recent decades, it is time for MSME sectors to up the ante and leverage on the growth-enabling policies introduced by the government. At the 2nd Emerging North East, an event organized by India’s oldest apex body ASSOCHAM, Smt. Bijoya Chakravarty, Member of Parliament, reiterated the fact that North East has become the center of attraction in regional development and it has now a real chance of becoming a major part of the India growth story. Commenting on the occasion, Smt. Bijoya Chakravarty said, “Northeast is a vantage entry point for the Southeast Asian markets. This resource-rich region, with its vast expanse of fertile farmland and huge untapped human capital, has the potential to be India’s most prosperous region in the coming years.
I invite all associations present here to make complete use of these advantages to move India’s economy towards prosperity. Northeast has witnessed tremendous development in the recent years in terms of infrastructure. However, the local people still need proper training in order to absorb the employment opportunities from the new industries to be setup in the state.” She also emphasized on the potential of fishery sector in this region and recommended wise use of modern technologies in the sector for proper business generation. The event witnessed presence of imminent personalities such as Shri Jayanta K. Samal, DGM, NABARD, Shri Malay Mandal, AGS, MSTC, Dr. Avinash Choudhary, Zonal General Manager, NSIC, Shri Kuldeep Singh Datwalia, Director General, PIB, Guwahati and Mr. Uday Kumar Varma, Secretary General, ASSOCHAM.

The three-day event has been organized to facilitate investments and partnerships, providing opportunities for local youth, women, Non-Governmental Organisations and developmental agencies to network with the national level institutions, industries, experts and officials from various departments. Inaugurating the event, Shri Uday Kumar Varma, Secretary General, ASSOCHAM, said, “Northeast enjoys locational and resource advantage to be promoted as an international trading and commercial hub. This year Emerging North East 2019 aims to strengthen the industries like tourism, horticulture, food processing, agriculture etc. this will not only help India in becoming a major economic superpower but will also open immense opportunities for employment, income generation leading to poverty alleviation and social sustenance in a comprehensive way, fulfilling the dreams of millions of our compatriots. Therefore, attracting business in Northeast India for the overall well being of the region is our top priority now.

We are making efforts to create interventions for building business partnership and have fruitful meetings & discussions to grow North East’s footprints all over India.” Understanding the unawareness and ignorance underwent in the past, the present Government is now specially focusing on this untapped part of India. Realizing the huge potentials those Northeast posses in terms of trade and commerce the Govt. is bringing in ease of doing business. It has announced a 21 per cent hike in budgetary allocation 2019-20 with assured infrastructural developmental initiatives in inland waterways and connectivity. The key aspect for the government in the coming months will be to increase bilateral trade and tourism in the region.

Of late, the initiatives taken by various other agencies clearly indicate that there is lot of scope for the region to harness the potential and business opportunities are available provided the people realizing to leverage the same. Emerging North East 2019 aims to highlight and showcase the potential of this region in sectors like agriculture, horticulture, food processing, livestock, rural development, infrastructure, energy, social and development sectors. With developing commercial links, NorthEast India can become a prosperous doorway to India’s future and get on to the world stage by taking up opportunities offered.
Assam: Community fisheries of Darrang geared up for Uruka market


People of Assam are now busy preparing for Bhogali Bihu celebration with traditional fervour and gaiety. When we talk about celebrating Bhogali Bihu, the community feast on the Uruka night under the ‘Bhelaghar’, is always considered of much significance. But can the community Uruka feast ahead of Bihu celebration be completed without the special taste of local fish variety. Perhaps not! At this time of high demand of local fish what becomes the centre of discussion is the role of the fisheries, both in the government and private sectors. In a district like Darrang which has been regarded as the mother land of fisheries with several thousands of big and small size fisheries, some of which are of historical importance there is hardly anyone in the government sector from where consumers may expect to purchase a kilo of fish.

There comes the names of a few pioneering community fisheries in the district from whom even a consumer of lower income growth can expect to buy a local fish at a much lower price comparing to the market. ‘Suri Pukhuri Meen Mahal’ at village Balipota under Kalai gaon Development Block in the district is one such community fishery which has been earning the faith of the consumers in the Bhogali market of the local fish variety gradually in an increasing manner year after year. The management committee of the fishery, surrounded by an area of more than 22 bighas for the last one week, has engaged experienced fishermen and several country boats for harvesting fishes from the main fishery and then shift those to small nurseries to keep them alive till they reach the market. Talking to this correspondent, the secretary of the fishery management committee, Gajen Sarma on Saturday said that in the last Bhogali in several leading markets of the State including Guwahati, Mangaldai, Tangla, Kharupetia etc, they on the day of Uruka itself supplied around 65 quintals of local fish from which they managed to earn a net profit of more than Rs 10 lakh and this year their target is to supply about more than 80 quintals and thus earn an income of around Rs 15 lakh.

“Following the harvesting in last few days we have observed that fish production had increased reasonably well and we are very much hopeful that we can supply more than eighty quintals in the coming Uruka market.” Sharma shared. Ramani Deka, [resident of the fishery management committee said that depending upon the fish variety which include Rohu, Bhakua, Mirika, Silver Carp, Sital, Rup Chanda, Kolajar etc and sizes ranging from one kg to six kg in weight a reasonable retail price of Rs 200 per kg on an average without any rate of increase compared to that of the last year market has been fixed for the consumers. “There is no increase in the price comparing to that of last year. The rate is much lower with regard to the market and it is fixed considering the buying capacity of the common rural customers,” Deka reiterated.

Apart from ‘Suripukhuri’, ‘Lakshmipur Anchalik Meen Mahal’ has also yielded high fish production and its management committee is all set to supply a large quantity of local fish to the
Uruka bazaar, said Bhupen Deka, one of the office-bearers. “Last year we sold nearly 90 quintals and earned around rupees forty lakhs. This time the figure will be even bigger,” he included. Meanwhile regarding the demand of local fish in the Uruka market of the district, Apurba Bhuya, District Fishery Development Officer (Information) while talking to this reporter stated that last year it was around 40 ton and this year with the expected increase in population it will be nearly 44 ton.

Assam: Fishery sector has immense potential and we must vigorously engage in it


Assam Chief Minister Sarbananda Sonowal on Thursday said that the fishery sector of the State has immense potential and ‘we must vigorously engage in it for deriving maximum benefits’. Chief Minister Sonowal said this while taking part in the Fish Food Festival organized by Assam Fisheries Development Corporation Limited in cooperation with National Fisheries Development Board at Brindaban Garden in Guwahati on Thursday. “Assam is blessed with abundant water resources and we have the capacity to become biggest producer and exporter of fish in the country. But for that, we must adopt latest scientific technologies for augmenting our production,” Sonowal said. Appreciating the Fishery Department for being able to increase the State’s fish production by 20,000 metric tonne in 2017-18 from the previous year, the Chief Minister said that Chief Minister’s Samagra Grammya Unnayan Yojna (CMSGUY), a scheme to transform the rural economy with a budget outlay of Rs 33,000 crore, has also kept fishery as a priority area.

The infinite potential of Brahmaputra and Barak rivers must be harnessed to achieve fast paced development of State and vast presence of natural water-bodies must be properly utilized for growing the fishery sector, he added. Saying that countries like Vietnam has been able to sell fish imported from India at a higher rate by catering to the needs of the European consumers, Sonowal urged the people to adopt such practices to derive maximum benefit from the fish produced in the State. He also informed that cargo service has been launched recently in the State through which State’s farmers can export and sell their products in different parts of the country and the world and he urged the fish producers to take advantage of the cargo service. The government is taking all steps to popularize farming among the youth as a respectable means of livelihood, he stated. Minister for Fishery Department Parimal Suklabaidya, Chairman of AFDCL Ramakanta Deuri also spoke at the programme which was attended by Executive Director of NDFB Dr G Rathinraj among others.

Assam: Chief Minister Sarbananda Sonowal launches flagship scheme for fish production

Chief Minister Sarbananda Sonowal launched the flagship scheme of State Fishery Department, “Ghare Ghare Pukhuri, Ghare Ghare Maach” in a programme held at Srimanta Sankardev Kalashetra in Guwahati on Friday. The scheme is proposed to be implemented with loan assistance from NABARD and financial assistance from Chief Minister Samagra Gramya Unnayan Yojana (CMSGUY) Mega Mission Society. With financial allocation of Rs. 186.13 crore, this scheme will be executed in all districts of the State with a target to benefit ten thousand beneficiaries. The scheme aims at digging 1,811 hectare areas of new pond in a bid to produce 6,350 MT fish additionally in Assam, a press release said. Speaking on the occasion, Chief Minister Sarbananda Sonowal called upon the beneficiaries under the scheme to take up advanced scientific methods in pisciculture saying that mighty rivers like Brahmaputra and its tributaries as well as the water-bodies in the state hold immense potential for fish production in natural environment.

“Economic self-reliance would help the farmers of the State to enjoy a dignified life. Our Government has already unleashed strong measures to boost farmers’ income and ‘Ghare Ghare Pukhuri, Ghare Ghare Maach’ is a major intervention in this direction”, he said, adding that in synchronous with Central Government’s schemes like ‘Mudra Yojana’, ‘Krishi Sinchai Yojana’, Fasal Bima Yojana etc., the State Government has already rolled out CMSGUY in the state to leverage farm income. Appreciating the Fishery Department for its significant role in augmenting fish production in the State to the tune of 20,000 MT last year, Sonowal observed that involvement of public in successful implementation of Government is very important and they must take proactive role in this regard. He also urged the youth to take up benefits of the Government initiatives to make them economically self-sufficient and contribute in strengthening the economy of the State. Guwahati MP Bijoya Chakraborty, Chairman of Assam Fisheries Development Corporation Ramakanta Deuri also delivered speech in the programme. Coinciding the launching ceremony, Chief Minister Sonowal also released a handbook on local fish production and conservation techniques titled, ‘Kunhipaat’. He also handed over sanction letters to ten beneficiaries under the scheme in the programme.

**Assam: Climate change in India: Cuisine, culture take a hit in Assam**


"Weather is changing and so is naamsing,” retorts Renu Pegu of Hapekhati village on being asked about a fish recipe, relished exclusively by the Mising fishing community of Assam. People in her village, located on the banks of the Dhansiri river which flows along Kaziranga National Park, prepare the delicacy from locally available minnows and 60 wild herbs, including turmeric, yam and siju (spurge leaves). They say the nutritional content of naamsing is
comparable to chhurpi, a hard cheese consumed by yak herders of Tibet. “It also helps prepare a quick meal after a hard day’s work,” says Renu, who helps her husband in running a paan shop. Minnows start rotting within half-an-hour of landing. So the Mising usually store them after drying. “For preparing naamsing, we crush the dried fish into a paste along with the herbs and stuff it in bamboo stumps, which are then sealed with leaves and clay from the river bank. At the time of preparation, we simply scoop out the paste, mix with water, add salt to it and let it boil for a few minutes.

Till a few years ago, Renu and her family used to relish naamsing with rice almost every day. “These days I make it only occasionally,” she says. Elaborates her husband Jatin, “Like most other fishes, minnows have become a rarity in the Dhansiri. Till about five years ago, I could catch more than 5 kg of minnows within an hour of casting net. I had set up a counter next to my paan shop for selling the excess catch. Now, I do not get a kg of fish even after spending the entire day in the river.” Bothka Doley, an experienced jalua (one who casts nets) from the village blames changing rainfall pattern for the dwindling catch. “The production cycle of fish is closely linked to rainfall and floods.” On an average, Assam receives the third highest rainfall in the country and experiences three waves of floods during the six-month rainy season that begins in April. As the rivers swell they connect the numerous waterbodies, rivulets and streams along the course. During pre-monsoon floods, when the Dhansiri is in spate, schools of fish migrate towards the Kaziranga National Park, whose 300-odd waterbodies serve as hatchery and nursery for fish and other aquatic fauna.

They return along with the new batches towards the end of June, when the river swells again and the water bodies spill over. “This is when we cast our nets around the mouth of the tributaries from the park and get a good catch,” says Doley. This cycle has broken in recent years. The detailed project report for Climate change Mitigation submitted by Kaziranga National Park authorities to the Union environment ministry in 2016 states that the annual rainfall has decreased by 2.96 mm per year between 1951 and 2010. During this period, the mean temperature in the state has increased by 0.01°C per year, with pronounced warming during post-monsoon months and winters. Due to this changing climate and decrease in annual rainfall, there has been an increase in extreme rainfall events that are causing flash floods, says the document. Natural floods are boon to the community, says Pranab Doley, advisor to Jeepal Krishak Sramik Sangha, a local farmers’ and marginalised rights organisation. But the community is now worried about the changing intensity and frequency of floods and the amount of sediments they carry. Consider this.

This year, Golaghat received 30 per cent deficit rainfall and was experiencing a drought-like situation. In August, 116 villages in Bokakhat sub-division of the district got inundated within a span of three days, following heavy rainfall and landslips in upstream Nagaland. The met department of Nagaland recorded 348 per cent excess rainfall in July alone. Experts say similar instances of flashfloods during droughts were also witnessed in 2009 and 2011, when the state
recorded 20 and 30 per cent deficit rainfall. “Floodwater laden with sediments is not suitable for spawning, and thus affects the post-monsoon catch,” says Bothka Doley. Desperate by the situation, some are catching the fish migrating for spawning, ignoring a fishing ban from April to July on the rivers and waterbodies in the vicinity of the park. The dwindling catch has also dissuaded fish traders who camp on the sand bars at Dhansiri Mukh, where the Dhansiri meets the Brahmaputra, with large nets, own team of fishers for three to four months post monsoon. “Fish from Kaziranga is a prized catch.

But it has now reduced by 2,000 to 3,000 kg,” says Momin Ali, a trader from Goalpara who comes to Dhansiri Mukh every year. “Earlier, at least 20 traders used to camp here. This year, only five have come,” he adds. Side effects of silitation. Heavy rainfall and increasing silitation load in the river has also changed the taste of naamsing and a traditional self-governance system. “Earlier we would wait for the land to emerge from the floods. The ideal way to dry fish is to spread it on the white sand in the winter,” says 76-year-old Holiram Miri of Rajabari village. But now, due to heavy silitation load, the river is changing its course frequently. Miri relocated nine times since 1977. As many as five villages in Bokakhat sub-division had to move away from the Dhanisiri and the Brahmaputra since 1999. “Most displaced people are living on the embankments. Here, we do not have enough space to dry the fish,” he adds. The 2015 report of the Centre for Natural Disaster Management, Assam Administrative Staff College, says a combination of factors, both natural and anthropogenic, contribute to flooding in the state.

The primary reason, however, remains that surplus water generated by Assam’s dynamic monsoon regime is no longer draining away through the earth’s natural channels or old river courses due to the altered physiographic setting of the Brahmaputra basin after 1950,” it states. Worse, the communities have already lost their traditional system of cooperation and resilience, called rikbo-ginam. Under the system, explains Miri, the entire community would come to the rescue of a family if it needs help for, say, sowing or harvesting paddy or ferrying stranded livestock from a flooded area. In return, the affected family contributes to the community food basket which is used in times of calamity. “Now we have no one to fall back on,” he says.

Assam: As home gets eroded


People living on the world’s largest river island are struggling to survive despite attempts to develop it as a tourist attraction. Majuli, in Assam, has lost around half of its area over the last century because of erosion due to heavy flooding of the Brahmaputra. While the shores are protected by an embankment of sandbags and concrete barriers, the island is swamped during the annual monsoon and some experts have estimated that it will be completely submerged by 2030. Meanwhile, the 160,000 inhabitants attempt to make a living by fishing, building boats and raising crops on the silty soil. They are reliant on using ferries to reach the nearest market for...
their goods until new road bridges linking Majuli to Jorhat and Lakhimpur are finished. The construction project officially began with the laying of the foundation stone in February last year but has been beset by delays. Last December, media reported that one of the companies awarded the contract to carry out survey work had been accused of forgery.

However, the chief minister of Assam, Sarbananda Sonowal, has promised faster development of the island district. “There is tremendous curiosity of people around the world about Majuli and many want to visit the place,” he said, “The state government is taking up lot of initiatives for developing the tourism potential of Majuli. All superstitious beliefs must be removed from society with scientific temperament and people of both Barak and Brahmaputra valleys must remain united in the spirit of harmonious coexistence for faster development of the state.” Majuli is the largest river island in the world, covering around 880 sq km, according to Guinness World Records. Other reports suggest a smaller area of around 515 sq km. It has a long and rich history and is considered a centre of Vaishnavite Hindu culture, whose followers worship Vishnu.

The island is home to more than 30 Satras or monasteries, many of which contain irreplaceable collections of writings, antiques and masks. In 2008 the Government of India applied for Majuli to be listed as a World Heritage Site but no further action was taken after Unesco requested further evaluation of the area, including assessment of the impact of deforestation and the building of dams. The organisation said it wanted “to ascertain whether managed retreat is the only realistic approach to the flooding and erosion processes”.

Arunachal and Assam: Rijiju assures help as flash floods loom large in Arunachal, Assam


Minister of State for Home Affairs Kiren Rijiju has assured people in districts bordering Arunachal Pradesh and Assam that all preparations were being done to avoid any calamity in the face of possible flash floods. China had informed India about a landslide blocking a river in Tibet, which led to the formation of an artificial lake. This now poses a danger to the Indian region downstream as the sudden release of water from this temporary lake might flood the catchment area of the Brahmaputra in India. "There are some disturbances in the normal flow of the Siang river. But all preparations are being done. The district administration is keeping everything on track. All precautionary measures have been taken," Rijiju said on Sunday (October 21). The Yarlung Tsangpo river is known as the Siang after it enters India at Arunachal Pradesh from the Tibetan region and is called the Brahmaputra once it reaches Assam.

Flagging off the gravity of the condition, Member of Parliament for Arunachal East Ninong Ering also wrote a letter to Union Minister of State for Water Resources Arun Ram Meghawal requesting an immediate intervention to protect the land, water and forest of Arunachal Pradesh. "I have a request for our respected prime minister and the external affairs minister should inform
the local people about the rivers, dams and the India China Treaty. We need to evacuate the people from the area. China has already removed 6,000 people, near the Tibet plateau. Because the plateau region is under an emergency condition. Anything can happen within seven to ten days," he wrote. Assam Chief Minister Sarbananda Sonowal also, earlier on Saturday (October 20), directed authorities in districts bordering Arunachal Pradesh to "remain alert" for the possible flash floods. Sonowal directed the authorities in Dhemaji, Dibrugarh, Lakhimpur and Tinsukia districts to remain alert and take all possible steps to prevent any major catastrophe, a spokesman of the Chief Minister's Office said here.

Given the situation, 32 well-prepared National Disaster Response Force (NDRF) teams have been deployed as a precautionary measure in districts of Assam and Arunachal Pradesh that are likely to be affected. Thirteen teams have been deployed in Arunachal, two in Upper Siang and 11 in East Siang district. Of the 12 teams deployed in Assam, seven are in Dhemaji and one each in Dibrugarh, Lakhmpur, Sivasagar, Tinsukia and Jorhat. As part of the precautionary measure, six NDRF teams were airlifted from Kolkata and eight teams from Bhubaneswar last night. All NDRF teams are fully equipped with various flood rescue and life-saving equipment. Additional teams have been kept on standby at NDRF battalion locations. A 24/7 NDRF control room in Delhi is closely monitoring the situation round the clock and is in touch with the state administration. External Affairs Minister Sushma Swaraj spoke to the chief minister on Friday (October 19) night and urged him to take all possible measures in the wake of the situation.

Chinese Embassy spokesperson Counselor Ji Rong said that his country has activated the 'Emergency Information Sharing Mechanism' with India following the landslide on Wednesday near Jiala Village in Milin County in the lower ranges of Yaluzangbu river in Tibet. The reason cited behind the landslide was "natural causes". - The formation of an artificial lake poses a danger to the Indian region downstream as the sudden release of water from this temporary lake might flood the catchment area of the Brahmaputra in India. - Assam Chief Minister Sarbananda Sonowal also had directed authorities in districts bordering Arunachal Pradesh to "remain alert" for the possible flash floods. - 32 well prepared NDRF teams have been deployed as a precautionary measure in districts of Assam and Arunachal Pradesh that are likely to be affected.

Assam: Over 11,000 MT fish brought in Assam from outside in 2017-18


Assam brought nearly 11,450 MT of fish from Andhra Pradesh, Uttar Pradesh, West Bengal, Bihar and other states during 2017-18, while the state produced 3.27 lakh MT during the period, the assembly was informed on Thursday. Everyday Assam brings around 34.12 MT of fish from these states, Fisheries Department Minister Parimal Suklabaidhya said. Replying to questions of Aminul Islam (AIUDF), Ramendra Narayan Kalita and Pabindra Deka (both AGP), the minister
said the state imported 12,618 MT of fish during 2016-17 and 14,825 MT the year before. Regarding fish production in Assam since the formation of the government in the state, he said 3.07 lakh MT was produced during 2016-17 and 2.94 lakh MT the previous year.

To a query, he said allegations were received from the health department that chemicals such as formalin were used to delay rotting of the fish. On being questioned why the state government has not stopped the sale of such chemically treated fish, Suklabaidhya said it is not under the purview of his department. Asked what steps the fisheries department has taken to save people from the harmful effects of the chemical, he said the health department has been asked to recommend the safety measures to be undertaken, which will be implemented as soon as they are received. The Minister informed that according to the state Excise Department no GST has been charged for the sale of the imported fish in Assam.

Assam: Six electrocuted inside fishing pond


Six persons, including a 10-year-old boy, were electrocuted to death in Nagaon district on Friday morning when they were fishing in a pond unaware of an overhead 11000 volt feeder line that had snapped and fallen into the pond suddenly got charged. Eight people have been injured in the tragedy that struck Uttar Khatowal village, under Rupohi revenue circle, at around 7.50am. Villagers noticed the snapped high-voltage transmission line fallen into over the pond at around 5 am and informed the control room of Rupohi sub-station. “The villagers claim that the control room had told them that the wire was not a live and it needed to be put back again before charging it and so they went into the pond for fishing at around 7am,” police said. But, about 50 minutes later, when the villagers were still inside the pond, the snapped transmission line became charged, which instantly electrocuted all the people in contact with the pond water. Such was the power of the charge that there was smoke coming from the bodies.

A spokesman of the Assam Power Distribution Corporation Limited said that an ‘earth fault’ was reported at the 11kv Singimari feeder from Rupohi sub-station at 5am. “The line as not charged at that time but at around 7.50am, lineman Md Fakrul Ahmed gave the clearance for charging the line and accordingly the line was charged. Probably he did not notice the fallen line,” a spokesman of the state-owned power company said. The dead were identified as Rafiqul Islam, Jabar Ali, Habibur Rahman, Mainul Islam, Inamul Islam and Ashiful Islam (10). The injured were taken to Nagaon Civil Hospital and the condition of some are stated to be critical. Angry locals armed with sticks attacked the Ahmed’s house and damaged furniture and his vehicle. They asserted that negligence by APDCL had led to the mishap and demanded compensation of Rs 10 lakh to the next of kin of each of the dead and a government job to one of their family members. APDCL has so far announced an ex-gratia of Rs 2.5 lakh to each.
The government quickly shunted out managing director of APDCL Puru Gupta to industry and commerce department as commissioner and secretary and suspended Samaguri electricity subdivisional officer Pallab Das and three other APDCL employees, including line man Ahmed. Former chief minister Prafulla Kumar Mahanta visited the bereaved families and demanded that they be given adequate compensation, besides an inquiry into the incident. Chief minister Sarbananda Sonowal has asked additional chief secretary and APDCL chairman Jishnu Barua to start an enquiry into the incident to find circumstances leading to the electrocution and submit the report to the government immediately.

Andhra Pradesh: Formalin-fish ban: Exports from Andhra Pradesh to Assam normalised


Trade relations are on the verge of becoming normal with Assam with 260 consignments of fish being sent to the State, after the formalin-fish ban controversy, since July 7. As TNIE reported, from 92 consignments sent till August 10, the number has increased to 260 till date, auguring well for Andhra Pradesh’s fish trade with Assam. However, trade relations with Nagaland, Meghalaya, and Tripura are still frosty with the number of consignments remaining below 20, and showing no sign of increasing. After negotiations through a number of communiques since July, there has been a positive response from Assam and the demand for consignments has increased. But Nagaland, Tripura, and Meghalaya have asked for a meagre supply with the caveat that the fish be examined by quality assurance teams. The teams would comprise officials of Food Safety and Standards Authority of India, Animal Husbandry department, and the Fisheries Department. K Seetha Ramaraju, Additional Director, Fisheries department, said, “We have constituted one team each in Narayanapuram and Unguturu of West Godavari and one in Kaikaluru of Krishna district.” “Chief Minister Chandrababu Naidu and several government officials have written letters to the north eastern states. Though Assam has warmed up to our overtures, the other states have not.”

“However, they have told us to send quality assurance teams to their states and we have complied.” They said that they might gradually lift the ban if they are satisfied with the quality, he said. When asked if aqua farmers were affected due to the ban, he said that fish was stocked up and it will not be spoilt for a long time. He added that most of the supply has been directed to other states by negotiating bigger deals and that was the reason why there had been ‘no uproar in the aqua farming community.’ Regarding the media reports on the introduction of a new preservative using unrefined sugar and jaggery, Sitarama Raju said there was no movement on the proposal yet, and The Central Institute of Fisheries Education was working to bring about introduction of the new preservative.
Assam: Fresh wave of floods hits Assam; Brahmaputra and tributaries flow above danger mark; four districts affected


Another wave of floods has hit Assam, inundating four districts and affecting over 12,000 people. The Brahmaputra and its tributaries are flowing above the danger level, an official report said in Guwahati on Sunday. A total of 676 hectares of farmland in the districts of Dhemaji, Biswanath, Golaghat and Sivasagar has also been submerged in the third wave of flood this season, the Assam State Disaster Management Authority (ASDMA) report said. No death was reported in the fresh wave of floods, though the previous two waves together had claimed 50 lives, the ASDMA said.

The deluge affected 12,428 people in 48 villages in these four districts. In the worst-affected Dhemaji district, 11,355 are reeling under the impact of the floods, followed by 390 in Biswanath, 350 in Sivasagar and 333 in Golaghat, the report said. Two relief camps have been set up in Biswanath and Golaghat, it said, adding that at least 525 big, 753 small and 977 poultry were affected by the floods. According to a Central Water Commission report released on Sunday, the Brahmaputra was flowing above the danger level in Nimatighat in Jorhat, Dhansiri in Numaligarh Golaghat and Jia Bharali at the NT Road Crossing in Sonitpur district.

Assam: APART comes to Assam

https://www.telegraphindia.com/states/north-east/apart-comes-to-assam-255569

The Assam fisheries department will implement the fishery sub-component of the Word Bank financed Assam Agriculture and Rural Transformation Project (APART) in the next five years in support of WorldFish. WorldFish, also known as the International Center for Living Aquatic Resources Management, is an international, non-profit research organisation with headquarters in Penang, Malaysia. Its mission is to harness the potential of fisheries and aquaculture to reduce poverty and hunger in developing countries. Team leader of WorldFish, C.V. Mohan, visited Assam during a two-day workshop organised by the directorate of fisheries on Monday and Tuesday and explained the participants the technicality of the project objectives of APART. He stressed on increasing availability, access and consumption of nutrient-rich safe fish.

Assam: Sonowal reviews fishery sector

https://www.telegraphindia.com/states/north-east/sonowal-reviews-fishery-sector-252079
Assam chief minister Sarbananda Sonowal on Monday directed the fisheries department to prepare an assessment report of the quantity of fish required in the state to gain a clear picture about the potential of the market. Sonowal said the Act East policy of Prime Minister Narendra Modi has opened a window of opportunity for the state's fish producers to gain access to the South-East Asian market and they must be prepared to compete with the best in the world. The chief minister distributed appointment letters to 32 junior engineers of fisheries department here. Sonowal asked the new appointees to spend a night with the fishermen and the fish producers to understand their difficulties and challenges. "The fishery sector has immense potential and we must vigorously engage in it for deriving maximum benefits.

Assam is blessed with abundant water resources and we have the capacity to become biggest producer and exporter of fish in the country. But for that, we must adopt latest scientific technologies for augmenting our production," Sonowal said. Appreciating the fisheries department for being able to increase the state's fish production by 20,000MT in 2017-18 over the previous year, Sonowal said the Chief Minister's Samagra Grammya Unnayan Yojna, a scheme to transform the rural economy with a budget outlay of Rs 33,000 crore, has also kept fishery as a priority area. "The infinite potential of the Brahmaputra and the Barak must be harnessed to achieve fast-paced development and vast presence of natural waterbodies must be properly utilised to grow the fishery sector," he said.

Saying that commercial fishermen go through a lot of hardships to catch fish, which one cannot realise without witnessing their painstaking processes, Sonowal announced that best fishermen and fish producers would be felicitated at a state-level programme to acknowledge their contribution to the state. Highlighting the programme of distributing soil health cards to farmers as an important step by the Centre to give the farmers knowledge of the quality of their farming lands, Sonowal said the cards have been distributed to 11 lakh farmers of the state. The distribution of water health cards is also being planned, he added. Fisheries minister Parimal Suklabaidya said Nabard has approved a package of Rs 100 crore for 1,000 hectares of fisheries of individual owners. He said efforts of the department's officials had resulted in the 3.27 lakh MT production of fish in the state in 2017-18, an increase of 20,000MT over the previous year.

**Assam: Flood toll reaches 46**


A person died in flash floods in Assam's Hojai district taking the number of flood related deaths in the state to 46, the Assam State Disaster Management Authority (ASDMA) said today. According to ASDMA the latest casualty was reported from Lanka revenue circle. In one of the worst affected districts of Golaghat, more than 81,000 people have been displaced by the devastating floods, the ASDMA said, adding that till yesterday, over 87,000 people remain
affected across the state. Currently, 110 villages are under water and 6,855 hectares of crop areas have been damaged, it said.

Assam: Govt to adopt fisheries co-op (Fishfed)


With a view to controlling the fish market, the Assam govt will soon merge the Assam Apex Cooperative Fish Marketing and Processing Federation Ltd (Fishfed) with the state fisheries department. Fishfed is currently being run by the cooperative department, reports Telegraph. The move to merge Fishfed with the fisheries department had been taken in June this year. The move is also prompted by the aim of eliminating middlemen, assuring better price for fishermen and an assured market for consumers. Fishfed is the apex cooperative federation to help the state’s fishermen for their socio-economic development through primary fisheries cooperative societies by increasing production of fish through member societies and through its own project. A source close to fishfed says fishfed had 516 cooperative societies under its control worked for fish production, but because of various reasons, most of them are inactive.

Assam: Push to control fish market

https://www.telegraphindia.com/states/north-east/push-to-control-fish-market-246923

In an attempt to control the fish market in Assam, Dispur has planned to merge the Assam Apex Cooperative Fish Marketing and Processing Federation Ltd (Fishfed) with the state fisheries department soon. At present, Fishfed is run under the cooperative department. The decision to merge Fishfed with the fisheries department was taken in a cabinet meeting in October 2017 and the final notification to implement the decision was issued by Dispur in June 2018. Fishfed is the apex cooperative federation to help the state's fishermen for their socio-economic development through primary fisheries cooperative societies by increasing production of fish through member societies and through its own project. Its another aim is marketing the produce through various markets and sales booths of Fishfed by eliminating middlemen, assuring better price for fishermen and an assured market for consumers.

"It will help mainly in marketing management and to implement any project as both Fishfed and the fisheries department deal with the same matter. So, in most of the cases we need help of the department and the process becomes lengthy. Now, it will be short and easier," an official of Fishfed said. Reacting to uncontrolled price at local fish markets, an official said: "Fish is a perishable product; so it is impossible to control the market. Moreover, in Assam, there is lack of proper storage facilities for local fish. So, despite lots of resources in Assam, market of imported fish is running so well." The notification issued by the administrative reforms and training
department of Assam said: "With merging Fishfed with the fisheries department, the name Fishfed will remain unchanged.

The fisheries department and Fishfed shall endeavour to strengthen and develop fish production, processing and marketing in Assam. "Moreover, the employees and all assets and liabilities of Fishfed shall remain with Fishfed at the time of this transfer and there will be no additional financial implication on the state exchequer. Fishfed, being a registered cooperative society, will be regulated and managed as per the Assam Cooperative Societies Act, 2007. The appointment of managing director and matters relating to appointments of board of directors will be done by the fisheries department." In Assam, according to information revealed by officials of the fisheries department, annual production of fish is around 3.07 lakh tonnes against the annual market demand of around 3.43 lakh tonnes. "Under Fishfed, altogether 516 cooperative societies were working for fish production, but because of various reasons, most of them have now become inactive. Moreover, Assam lacks proper market-oriented production," a Fishfed official said.

Assam: Promotes fish seed village


The Assam fisheries department is working to expand the concept of fish-seed village among pisciculturists for production of quality fish and proper size of fingerlings available to them. An important feature of fish-seed village, which the department has adopted in recent years, is that it will unite the farmers of the village for a common cause and enhance the farmers' confidence in marketing and understanding the concept of quality fish seed according to norms laid down under Assam Fish Seed Rule, 2010, which is the first of its kind in the country. Dhruba Jyoti Sharma of the directorate of fisheries said, "A group of trained fish farmers are involved in production of fish seeds of various cultivable species and cater to their own needs, fellow farmers of the village and farmers of neighbouring villages at an affordable costs.

This is like developing a single market, comprising a cluster of quality fish-seed shops at one location in each village, for easy access to quality fish seeds. The technical support for the implementation of this fish-seed village concept is being provided district wise." Illius Ahmed, a fish farmer from Hojai, said, "The production of quality fish seed is very difficult as it depends upon the condition of nature. Sometimes, the temperature of water in which the fish seeds are kept exceeds the required level and the seeds hatch prematurely. Moreover, as we depend upon canal water, shortage of rainfall makes the pond go dry and there is a crisis of water which destroys the seeds. Poor facilities affect the production of quality fish seeds." Ahmed, who wants the concept of fish-seed village to be extended to his locality, said, "The concept is excellent. Its expansion will definitely benefit us."
Sources from the National Fisheries Development Board of the Northeast said poor fish seed rearing infrastructure, lack of awareness towards scientific and professional management of rearing ponds and poor fish seed transportation and marketing facilities that lead to high mortality rate are some additional problems of fish seed production. Earlier this week, the state government had banned import and sale of fish from other states for a period of 10 days following tests that showed the presence of chemical formalin. Aizawl formalin test Samples of fishes collected from market in Aizawl will be tested at the laboratory of the Regional Institute of Para-Medical and Nursing Sciences (RIPANS) to ascertain whether cancer-inducing formalin is present or not, a senior Mizoram health department official said on Monday. Joint director of Food and Drugs Administration (FDA) Lalsawma said 1.5kg of fish samples collected from Bawngkawn market from where fish sellers purchase the fishes imported from different states was tested at the Food Testing Laboratory at Zemabawk last week, adds PTI.

**Assam: Urea found in local fish, says Fishfed**


The Assam’s fishery industry is under threat because of excessive use of urea. The was revealed by the Assam Apex Cooperative Fish Marketing and Processing Federation Limited (Fishfed) here recently after the state government imposed restrictions on imported fish. "A field survey revealed that many pisciculturists of the state use urea in an unscientific way. It is a challenge for the industry, which has bright prospects. In general, 3kg of urea should be used for pisciculture on one bigha of land. This is the norm in lower Assam but it is not followed by the farmers," an extension officer of Fishfed said. Dipesh Debnath, a scientist with Central Inland Fisheries Research Institute, said, "Urea does not have any direct impact on fish. It is a fertiliser and a source of nitrogen. Therefore, in some aspects it is necessary for fish farming. But if it is used in excess, algae growth in a fishery will be higher, water quality will deteriorate and fish will die."

The Fishfed officer, who is mainly responsible for the development of local fish market in the state, said, "In Assam, fish farming is not organised. In the market, the size of fish is a big factor. However, most local farmers sell fish at advance fingerling stage. So the large fish market is dominated by imported fish." Nitul Das, a fish farmer at Hajo, said, "In Assam, most pisciculturists lack awareness. It is one of the most profitable businesses and we have the resources but are not able to utilise it properly. The preservation of fish for a long time is also a challenge." On Saturday, a group of officials from Andhra Pradesh collected samples of imported fish in Rangiya to verify the allegation of use of formalin. "The team collected nine samples and they will submit a report within Monday," a source in the Assam fisheries department said. The team came after an investigation by Assam government detected formalin in imported fish. The Assam government on Tuesday banned the import of fish for 10 days.

**Assam: Formalin found in Fish in Assam's Guwahati markets**
The Assam government has banned import and sale of fish from Andhra Pradesh and other states for a period of 10 days after cancer-causing chemical formalin content was found in the imported fish. The decision was taken after formalin, a cancer-inducing chemical which is used to keep dead fish fresh, was detected in fish being sold in markets areas of Guwahati. Minister of state for health and family welfare Pijush Hazarika said, "The government has taken a decision to ban fishes brought from outside after analysis of growing health issues due to the consumption of fish containing formalin (Formaldehyde)." "We had collected samples from the fish market, results show presence of formalin.

We have imposed a 10-day ban on import of fish from outside Assam," he added. The presence of formalin content in the fish came to notice after the state health department carried out a laboratory test. Mr Hazarika further announced that from there will be a statewide blanket ban on the sale of all the fishes brought from outside in all over the state for 10 days. He added that once the ban is imposed, anyone found violating order will be penalized. Also people who violate the rule will have to pay a fine up to Rs. 10 lakh with seven years of imprisonment. Mr Hazarika further appealed to the people engaged with fish trade not to take advantage of the current situation by increasing the price of the local fish in the market.

**Assam: To procure Rapid Detection Kit to check fish quality**

In a bid to determine the quality of the fish on the spot, the Assam food safety department has placed an order for the supply of two variants of rapid detection kits. A source in the department said that the machines ordered are manufactured by a German multinational pharmaceutical company. “The kits will help assess and ascertain if the fish sold in the markets are contaminated with chemicals such as ammonia and formalin. The two variants of the kits will exactly ascertain the contamination of fish and its extent can be ascertained on the spot. Generally, the test conducted on samples in a laboratory is elaborate and time consuming,” a senior official of the Assam food safety department said. While formalin-laced fish comes from outside, unscrupulous traders apply ammonia on their stock to slow down the melting of ice used to preserve the fish which take time to reach the markets from the sources. “The rapid detection kits will come in two variants. One of them will be capable of ascertaining the presence of higher doses of chemicals. The kits will take about 15 days to arrive here, we have been told telephonically,” the official said.

While Nagaland had already been using the kits, along with Assam, the food safety departments in Meghalaya and Arunachal Pradesh have also placed orders for such kits. This becomes
necessary as not only fish, but chemical-laced food items have made foray into the city in different other items. Huge quantities of chemical-laced mangoes and bananas have been seized from different parts of the city over the past few weeks while milk and edible oil samples are undergoing tests in the laboratory. However, it is learnt that the detection kits, though fast in operation, are not a foolproof solution to the problem. The laboratory test results take at least 3-4 days to come, but are foolproof.

Assam, Jharkhand and Odisha: FISHCOPFED to set up Aqua Centres in states


FISHCOPFED has signed an MOU with the National Fisheries Development Board (NFDB), Hyderabad to set up initially 16 Aqua One Centers in the state of Assam, Jharkhand and Odisha. On success it shall be replicated in other states of the country. In all six firms have been shortlisted in the country including FISHCOPFED from the cooperative sector whereas the others are from the private sector. Each AOC shall provide ICT enabled aquaculture support services besides all other related services under one roof to the registered fish farmers with an aim to transfer latest technology to enhance fish production and focus on e-traceability. It is an improved modified concept to empower potential fish farmers. Funding support to the extent of 80% shall be provided for NE states and 50% for other states shall be applicable to FISHCOPFED.

The federation which has already opened up eight offices in the country shall coordinate with its member institutions and the concerned state Fisheries Dept to make it a success, said Fishcopfed MD B K Mishra. Earlier, Fishcopfed got into the spotlight with convergence of Group Accident Insurance Scheme with Pradhan Mantri Suraksha Bima Yozana (PMSBY) to be implemented through the cooperative for the fishery sector. The FISHCOPFED has been identified as the nodal agency by the Govt. of India to implement the Scheme for the fisheries sector.

Assam: Skill development programme organized for hill fish farmers


A skill development programme on ‘Start-up fish farming, fish seed production and hatchery management for hill farmers of Ziro valley, Arunachal Pradesh’ was organized during recently at Pabhoi Fish Farm, Pabhoi, Biswanath district. The programme was organized under the aegis of ICAR-Directorate of Coldwater Fisheries Research, Bhimtal, Nainital district, Uttarakhand with an objective to train fish farmers of Ziro valley and to develop hands-on skills on scientific aspects for better fish farming practices, fish hatchery operation and management and fish seed production by artificial breeding techniques through hormone administration. The output of this hands-on skill development programme among the hill farmers of Ziro valley, Arunachal
Pradesh is expected to make the region and its adjoining areas self-sufficient in quality fish seed production for stocking and enhancing fish productivity.

Effort has been made in an earlier phase by ICAR-DCF, Bhimtal in establishing a fish hatchery at Hari village of Ziro valley, Lower Subansiriri district of Arunachal Pradesh, in association with the State Fisheries Department of Arunachal Pradesh and Gaumco Multipurpose Cooperative Society Pvt. Ltd. to augment the fish seed production scenario. In the second phase, the farmers of the valley are trained to develop skills from a reputed and recognized fish farm and seed production centre in Assam for which the Pabhoi Fish Farm was approached by ICAR-DCF. During the five-day programme, the farmers learned the broodstock selection criteria, brooder size, their feeding techniques, handling during harvest, prophylactic measures and better management practices. Skill development was emphasized on detection of spawning status of brooders, segregation of male and female brooders, hormone administration in brood fishes, water circulation regulations, estimation of egg count and fertilization percentage, egg collection techniques, hatching and incubation.

The hatchery operation techniques were followed by nursery management practices which include transfer of spawns from hatchery unit to nurseries, nursery preparation, insect control measures and feeding management. In addition, skills to identify fish seeds at fry stage, weighing methods for transport and marketing, oxygen packaging was learned. The farmers of Ziro valley expressed satisfaction on completion of the programme. The queries raised by the farmers in the interactive sessions, both in the classroom and field, were solved and answered by the proprietors of Pabhoi Fish Farm, Biren Bhagawati and Bhargav Bhagawati. The programme was coordinated by Deepjyoti Baruah, Senior Scientist from ICAR-DCF, Bhimtal.

Assam: The river people under threat


Monai Doley is telling me how he cures snake bites. We are standing in a paddy field: scorching sun, cloudless sky. This is the island of Bhekeli 1 in Assam, north-eastern India. Doley, tall and broad-shouldered, head shaved, tells me the Cal Bikal snake is particularly dangerous. To cure its bite, Doley rinses his mouth with local rice beer (an antiseptic of sorts), ties a tourniquet above the wound, and then puts his mouth to it. “I suck the poison away, spit it out,” he says. Next, he applies a herb paste. The tourniquet stays on for six hours. Afterwards, healthy blood will re-circulate, he says. Doley learned these skills (not to be attempted at home) as a youngster from visiting fishermen. But snakes were not the only risk he faced. “The Brahmaputra River was far away at first. But in 1987, the floods arrived from the hills,” he says. He and the family were forced to flee to the other side of the island. But the danger is not over. “We are ready to escape at every moment.”
I’m visiting Bhekeli 1 with the Brahmaputra Boat Clinic, a team delivering healthcare along these riverine islands (known as ‘saporis’ or ‘chars’). Often little more than sandbars, the saporis form through deposition of huge volumes of silt carried by the river from the Himalayas. About 2.5 million people – some 8% of Assam’s population – call these islands home. The Brahmaputra lives in their rituals and religions, nourishes the soil and sustains them far away from the ever-developing Assamese mainland. But it also has the power to destroy and to displace. Thanks to climate change, the threat of floods, erosions, and even earthquakes still looms – and is getting more acute. That makes the sapori people, who have dwelled here for hundreds of years, at risk of losing their homes, livelihoods and their lives. I’m here to understand what lies ahead for the sapori people.

To do that, I need to begin with the river. Dense fog delayed our departure from Nimati Ghat riverbank that morning, but as the view cleared, the Brahmaputra seemed impossibly calm. Tall, feathery-white reeds of wild sugarcane – kohua bon – swayed gently on the riverbanks. We are hundreds of kilometres from the river’s source, Tibet’s Angsi Glacier. Beginning as the Yarlung Tsangpo, the river winds through the Himalayas, Arunachal Pradesh, and next Assam. Then it gathers force and depth. At times its banks are 10km apart. It charges through Bangladesh to unite with the Ganges and Meghna, ending its 2,880km course at the Bay of Bengal. There have been 25 major floods since 1950; more than 11,000 people died in 1977 alone. Today’s tranquillity is deceptive.

The Brahmaputra’s volume is outdone only by the Amazon and Congo. Add to this heavy rainfall (its valley receives over 100 inches annually) and inevitable monsoon floods and landslides, and it brings families perched precariously on roofs, livestock and crops destroyed, relief camps crowded. There have been 25 major floods since 1950; more than 11,000 people died in 1977 alone. In July 2012, two million were left homeless, only for more floods to follow that September, when another 1.5 million lost their homes. The sapori people suffer most, as vulnerable as the islands themselves. One innovation to help them is the boat clinic, which I am travelling with for the week. After one of these floods, journalist Sanjoy Hazarika heard the story of a pregnant young sapori woman who died before reaching a mainland hospital. And so began his idea for the Brahmaputra Boat Clinic: a mobile medical unit that can reach the islanders not only in emergencies, but to provide the kind of basic, routine care like immunisations that the sapori people, disconnected from the mainland’s infrastructure, usually have lacked.

Hazarika, who is also a researcher, policy analyst, and film-maker, began in 2005 with one boat and a World Bank award of $20,000. Today 15 boats operate in 13 districts of Assam with 250 staff. Now operating with a public-private partnership model (the principal stakeholder is the National Health Mission of the Government of Assam), the Boat Clinic’s teams reach 350,000 people every year. Back on Bhekeli 1, we walk towards the village. The islanders here are from the Mishing tribal group. Their homes, called ‘chang gars’, stand on stilts at least five feet from the ground with an adjustable bamboo platform to defend against flooding. Underneath, black
pigs doze peacefully. A rusted water pump stands by pails of stagnant water. Blue fishing nets hang from each doorway next to barrels of dried fish, namshing. “Oh baido, doctor ahila,” shouts community worker Jitu Dutta, announcing the clinic’s arrival. Families slowly emerge, the children caked in dust and barefoot. Kajal, four months old, is snugly fastened to her mother Somti in a sling. Dutta notices an oozing sore on her elbow and encourages Somti towards the medical tent.

Another patient, Tikshri Pegu, is 70 years old, she thinks. Her spine impossibly bent, she had a stroke in her 20s. “I was like a dead person: my right arm died too.” She sought black magic – ‘Tantra Mantra’, the islanders call it. Treatments called for massages with red chilli and mustard oil, chants and prayers. Tikshri’s right hand remains lifeless but she works in the fields even now. Tantra Mantra has been outlawed since then, but indigenous remedies remain, often administered by a traditional healer or bej: the green stem of bamboo is rubbed over cuts, the fruit of the sīnggung (a red silk-cotton tree) is chewed for dysentery. So too are the leaves of boga bahak (a nut shrub) for whooping cough. Roots of the durun bon herb are administered to snake bites. For presumed tuberculosis, the seeds of the joni shrub are ground with pestle and mortar – two teaspoons twice a day. Back at the water’s edge, a small crowd has gathered at the medical tent. Medications for scabies, malaria, dysentery, high blood pressure and diabetes are available.

Those dozing pigs have a lot to answer for – tapeworms from undercooked smoked pork are common among the islanders – and so tablets against ‘pellu’ are popular. Some patients seek immunisations and family planning advice. A midwife provides antenatal and prenatal care. There are lab tests for anaemia, malaria, and syphilis. Dr Saika presses his stethoscope to a child’s wheezing chest and prescribes an inhaler. Sometimes, patients are referred to the mainland, but there is no need today. The sun sets: time to head back to the boat where daal and chicken curry await the crew. After eating, we crawl under mosquito nets, falling asleep as the Brahmaputra softly laps the sides of the boat. Boatmaster Bipul Payeng, 34 years old, has sailed the Brahmaputra for two decades. GPS is useless here, he says. “We simply sense the river.” He shows me a laminated map printed last year.

Three islands are marked in yellow – Bhekeli 1, 2, and 3. The people of Bhekeli 3 fled months ago, their island eroded. The map is already out of date. The 1950 Independence Day earthquake (8.6 on the Richter scale) killed around 1,000 people and changed the Brahmaputra’s course forever. Some 45 billion tonnes of silt were carried downstream, populating the riverbed and emptying onto banks. Even now, the river carries one of the world’s highest sediment yields, higher still during floods. Since the earthquake, the river bed has risen by up to 10 metres and continues to widen. Silt leaves the land fertile, but now the river has become braided – one channel turns into many, the water eroding the river banks as it goes. Between 1954 and 2008, the total area of erosion in this region was 427,000 hectares, 4% of the plains of Assam. Since the earthquake, erosion has decimated more than 2,500 villages, 18 towns, countless cultural
heritage sites and entire tea gardens. Nearly half a million people have been affected. Between 2005 and 2010 alone, 880 villages and almost 37,000 houses were completely eroded. Even the school on Doley’s island tumbled into the water earlier this year. Other dangers loom, including plans for dams that potentially could divert the Brahmaputra’s course.

Rising temperatures are shrinking the glaciers of the Himalayas and the Tibetan plateau, accelerated by air pollution, which could cause more flooding. In some places, the state government’s plan on climate change predicts a 25% increase in flooding and 75% in droughts, along with additional erosion, mudflows and avalanches predicted. Also at stake is the region’s delicate ecosystem. Its wetlands, tropical rainforests, grasslands, bamboo orchards and tea gardens thrive on the river’s fertile basin. Assam’s two World Heritage Sites, Kaziranga and Manas, are famously home to the one-horned rhino as well as tigers, elephants, leopards, water buffalo, swamp deer and golden langurs. At least 346 animals at Kaziranga died in the 2017 floods including 15 rhinos, one Royal Bengal tiger and four elephants. Suddenly, there is a cry from Payeng: “Xihu, xihu!” (Dolphin, dolphin!). A Ganges River dolphin leaps through the air. We are fortunate to catch this glimpse.

The dolphin is officially endangered, facing threats across the Ganges and Brahmaputra: pollution, entanglement in fishing nets, dams that split up populations and reduce prey, and harvesting for dolphin oil. Conservation projects are encouraging fishermen to use alternative baits, but only 1,200 of these river dolphins remain throughout India, less than 300 in the Brahmaputra. Our sighting gives some hope, though. The dolphin sits at the apex of the aquatic food chain and so its very presence signals a healthy ecosystem and biodiversity. But there is little room for complacency. The Yangtze river dolphin was declared functionally extinct in 2006 solely due to the actions of humans, including overfishing, dam-building and ship collisions. The Ganges River dolphin also remains vulnerable. There are more than 220 ethnic groups in the Brahmaputra Valley with at least 45 languages. Over the following few days we travel to more sandbanks, clambering over rotting logs and parched earth. Dust swirls.

We visit other Mishing tribes and sometimes other groups, too: Deoris, Boros, Rabhas, Lalung – there are more than 220 ethnic groups in the Brahmaputra Valley with at least 45 languages and many more religions, laws and customs. The younger generation occasionally seek work on the mainland, usually in the service industry, but the agricultural sector remains the mainstay of employment. And so, as long as the land is endangered, its people are, too, their fates entwined. They speak of erosion time and time again. “We must fight it,” says Payeng. Otherwise, the saporis will wash away. “This is a land war.” Built against erosion, structures on the Brahmaputra River could make matters worse. That war is complex. Embankments, constructed against floods, actually could worsen erosion – whether by confining the river’s course, increasing the water’s velocity or simply shifting problems from one area to another.
Dredging is another proposal: the latter is claimed to battle erosion through increasing the river’s water-carrying capacity but could equally change the river’s course and faces enormous technical challenges. Costly geo-textile tubes used to stabilise a river bank at Majuli were washed away within a year. Stone spurs divert strong currents, thus protecting one location but potentially triggering erosion downstream. Boulders and sand bags protect receding river banks but are hardly infallible. Anti-erosion efforts need to address other factors, too – especially deforestation, dams, and climate change. We are only one of the many species living in these ecosystems, privileged to share space with them – Sanjoy Hazarika Hazarika is struck that those championing various anti-erosion strategies rarely ask the people living on the islands and river banks for their opinions.

It’s not just about people of course, he says. “We must be mindful of one simple issue: we are only one of the many species living in these ecosystems, privileged to share space with them.” Payeng later tells me of a Mishing folk story, Patukari Tuyub, the Dolphin Maiden. One version has a young girl, Yakasi, being drowned by her neighbours: dressed in black, a wooden pestle attached to her back, two brooms tied to her hands, she is pushed into the river. She returns as a dolphin, the story goes, those brooms became her fins. And so the Mishing see the river dolphin as their long-lost daughter, to be revered and protected at all costs. As we watch another dolphin somersault alongside the boat, Yakasi is still with us. But her future and the future of her people depends on decisions made on the mainland. Onto to the next sapori we go. We have no map to guide us, but Payeng will surely get us there. Today, there is safety in the river’s serenity, and security in this knowledge of his. And despite our fears for the future of the Brahmaputra and its people, that will have to do for now.

Assam: France loan to up fish yield


The Assam fishery department has approached Agence Française de Développement (AFD), a public development bank of France, for Rs 1,767-crore loan to develop indigenous breeds of fish in 700 beels (wetlands) across the state. Sources in the fishery department said the bank has, in principle, approved the fishery department’s Wetland Conservation and Protection Project and a team will visit the state in July for "identification-cum-appraisal". The source said the bank will give Rs 500 crore as the first instalment to rejuvenate 500 derelict wetlands with potential of fish farming. Another 200 wetlands in forest land will be covered under the project. Along with giving employment avenues to local residents, the scheme will go a long way in preserving the flora and fauna of these wetlands, he added. "The project lays emphasis on production of indigenous varieties of fish," the source said. Senior officials of the state fishery department had recently given a presentation to the bank officials on the status of Assam’s fishery sector along with the possibilities of developing it.
"Self-help groups will be engaged in fish farming. In case of the forest wetlands, the communities living around them on the forest land will be engaged," the source added. The average fish production in Assam is 300kg per hectare per annum. The fishery department, through various pilot projects done under the financial assistance of the World Bank, has found that the production could be enhanced to 1,500kg per hectare per annum. The AFD has told the department that it has come to know about the proposed plan of dredging the Brahmaputra and constructing an expressway along it. "It is understood that the proposed wetlands/fisheries are located in the floodplains of the river. What will be the impact of these activities on the wetlands and fisheries?" it asked. The state fishery department has been working to increase contribution of the fishery sector towards the state gross domestic product by 0.50 per cent and reduce the fish demand-supply gap by 39 per cent. Fish production during 2015-16 was 2.94 lakh metric tonnes against the requirement of 3.36 lakh metric tonnes.

Assam: Fishing nets banned across Hailakandi district from April


In a bid to safeguard fingerlings, fish species and increase their population, fishing nets, including mosarijal have been banned across Hailakandi district of Assam with immediate effect until July 15. Fishing nets with less than one cm bar or two cm meshes in size are banned for use during the breeding season, said the order issued by Deputy Commissioner, Hailakandi, Adil Khan yesterday. The nets have mesh spanning from one to two cm that blocks small fish, fishlings and fish eggs from falling back into the waters, thereby stopping them from multiplying. “The move is aimed at curbing the exploitation of fish by safeguarding the fingerlings and eggs. It will ensure natural breeding, conservation and growth of fish in fisheries and natural water bodies,” said the order. Moreover, the order prohibits the catching of brood fish of certain species in proclaimed fishery from May 1 to July 31 and catching and killing including consumption and selling of undersized fish from August 1 to October 31.

“Any person who violates the order shall be liable to a fine which may extend to Rs.5,000. A further penalty of Rs.100 per day will be levied on those who continue to commit the offence repeatedly,” the order stated. The order stated that fishing nets and other equipment used in the commission of the offence would be confiscated. If any lessee commits offence twice, his lease will be terminated besides imposition of other penalties such as forfeiture of security deposit. Deputy Commissioner, Khan directed the Chief Executive Officer, Zilla Parishad, Hailakandi, Executive Officer, Hailakandi Municipal Board and the Executive Officer, Lala Town Committee to ensure strict enforcement of the order by stopping sale of prohibited sized fish in the markets under their respective jurisdictions. Khan asked the OCs of police stations and officials of Fisheries Department to execute the prohibitory order and to submit compliance report.
Assam: Fish project a success in Assam


The galvanised iron cage culture project experimentally initiated by the Central Inland Fisheries Research Institute (CIFRI) in Assam has been a success. The project was carried out on the Labeo bata fish species, showing a low mortality rate despite a higher rate of weight increase of the fish. The project has been set up in Samaguri Beel (floodplains wetland) in Nagaon district from September last year. Galvanized cage culture or aqua culture is an artificial system of fish harvesting. A cage made of galvanized iron with a protective zinc coating to prevent rust is used to confine the fish in an enclosure. Earlier, farmers and entrepreneurs of the state used bamboo cages. However, their use is diminishing because of a lesser life span of two years. The galvanised iron cages have a life span of around 10 years and are more viable for the fish industry, an institute official said. "After four months of harvesting, we detected less than five per cent mortality rate of fish, despite a 100 per cent weight increase of fingerlings. It is a huge success," institute scientist Simankshu Bora said.

Samaguri Beel occupies an area of approximate 1 lakh hectares with immense potential for sustainable increase of fish production. The institute has set up 16 cages at a cost of around Rs 11.7 lakh, an official said. Principal scientist and acting head of the institute's Northeast regional centre, B.K. Bhattacharjya, said, "The galvanised iron cage is expensive but more durable. It is economically more viable. If the government encourages local farmers by providing financial assistance, Assam could produce huge numbers of fish in a year." The official said for the cage culture to be successful, there should be open waterbodies with a depth of more than two metres. The institute carried out the project in collaboration with the Assam Fishery Development Corporation. Bhattacharjya said after the success of the project in Samaguri Beel, they were planning to set up such cages in various other beels of the state.

Assam: A river that needs special attention

https://arunachaltimes.in/index.php/2018/01/01/a-river-that-needs-special-attention/

Government agencies took almost two months to reveal the probable cause of the Siang river turning muddy – that too after a biological scientist and an environmentalist had uncovered it all. However, the exact reason for the river’s turbidity is not known yet. It is believed that massive landslides at the confluence of the Yarlung Tsangpo in Tibet, caused by an earthquake during the third week of November this year, resulted in a deposit of a huge quantity of limestone and other particles and contamination of the Siang river, which is known as the Brahmaputra in Assam. What is most surprising is that, initially the Chinese authority never considered the matter seriously, nor felt it necessary to find out the actual cause of the turbidity and contamination of the Siang river, which originates in Tibet.
It rather asked India not to point its finger at China on hydrological issues in Tibet and ‘look for problems on their own side.’ While China was not saying anything about the muddy Siang river, on the other hand, it seemed that New Delhi too was not serious about the impending danger to human life and properties in the Siang belt by the river’s turbidity, despite being informed of the matter by the chief minister Pema Khandu and MP Ninong Ering. When the contaminated water of the Siang river began to take a toll on aquatic life and wildlife, the central government came out with a possible reason for Siang River pollution saying that ‘it may be possibly be due to landslide, earthquake or any other activity’ in the upstream Tibet region. It was believed that the prime minister took up the issue seriously at the initiative of the Assam chief minister. Reportedly, the PM asked the union external ministry and the water resource ministry to find out the root cause of the Siang/Brahmaputra turning black and take remedial measures on a war footing.

However, it seems that the issue was not given much importance when several MPs raised it in Parliament. There was no elaborate discussion on the issue in Parliament for remedial measures. When both India and China were engaged in the blame game instead of finding out the cause of the water pollution, the polluted Siang river already affected aquatic life and wild animals not in only in the Siang valley but also downstream in Assam. The migratory birds in Daying Ering Wildlife Sanctuary disappeared. The sharp increase in the turbidity level of the river forced migratory birds to change their destination to other regions. It also affected fisherman as the fish population suddenly decreased in some areas of the contaminated Siang river. However, though very late, China, which claims Arunachal as its territory in South Tibet, only recently gave lip service and assured India on maintaining communication on the artificial lake and said that contamination of the Yarlung Zangbo (Chinese name for the Brahmaputra) river was because of massive earthquakes in Southern Tibet.

It seems both the state and central governments failed to take a lesson from the devastating flash-flood caused by the breaking of an artificial dam following the Tibet earthquake in 2000. Even though China denies carrying out construction activities in the tributaries of the Yarlung Zangbo, India must take a major diplomatic initiative to compel China to initiate a comprehensive water management policy as the agreement signed between the two Asian giants on hydrological data in Tibet will hold water, given the situation. A strong mechanism should be in place with China on the water-sharing issue, and for preventive and remedial measures in case of any manmade and natural disaster at the confluence of the Brahmaputra in Tibet. We can only hope that China, intentionally or unintentionally, will not use the water in Tibet as a weapon or a tool to gain leverage over India. The new year should be a year of mutual understanding, and the two Asian giants should shun the path of confrontation.

**Assam: 54% increase in fish production**
Fish production in Assam has increased by 54 per cent in the past nine years, says a report of the Union ministry of agriculture and farmers' welfare. The annual report of 2016-17, published by the department of animal husbandry, dairying and fisheries of the ministry, says fish production has increased to 2.94 lakh tonnes in 2016-17 from 1.90 lakh tonnes in 2007-08. Assam is predominantly a fish-eating state with 90 per cent of its population consuming fish. The increased fish production, however, is yet to meet the demand which is 3.36 lakh tonnes a year. To meet the gap, the state depends on leading fish producing states such as Andhra Pradesh.

Assam produced 190 tonnes of fish in 2007-08 which increased to 200 tonnes in 2008-09, 218 tonnes in 2009-10, 227 tonnes in 2010-11, 228 tonnes in 2011-12, 254 tonnes in 2012-13, 266 tonnes in 2013-14, 282 tonnes in 2014-15 and 294 tonnes in 2016-17. The state has 4,820km of rivers and canals and 1.35 lakh hectares of waterbodies, including tanks, ponds and floodplain and derelict waterbodies.

Assam is the highest fish-producing state in the Northeast. In 2016-17, Arunachal Pradesh produced four tonnes of fish, Manipur 32 tonnes, Meghalaya 11 tonnes, Mizoram six tonnes, Nagaland eight tonnes and Tripura 69 tonnes. Andhra Pradesh, the top fish-producing state, produced 2,352 tonnes in 2016-17. It registered 132 per cent growth in the past nine years. According to the report, expansion of area under aquaculture has to become an important option to boost fish production. It says: "The Brahmaputra basin has enormous beels lying idle. There are about 1.3 million hectares of beels and other derelict waterbodies in the country. Bringing these waterbodies into the ambit of fisheries will boost fish production tremendously and hence expansion of fisheries in these waterbodies is one of the focus areas of the department for increasing fish production."

Assam: River water pollution in two states spurs research in upper reaches; fish population dwindles

The Central Inland Fisheries Research Institute (CIFRI) has detected high turbidity in the waters of the Siang where investigation for chemicals and biological ingredients is under way. A team of researchers from the institute, who had recently visited the upper reaches of the Brahmaputra and Siang rivers, said change in water content has reduced the fish population at an alarming rate. According to the Brahmaputra Water Investigation Report published recently by the institute, more than 1,000 formazin nephelometric units (FNU) have been found with transparency of about 2 to 4cm. In September - before the report on Brahmaputra's waters - the institute had conducted a survey in the Siang where transparency of water was around 15cm.
An official with the institute said in the earlier study, general turbidity was not investigated and so they could not say the standard level. But the current level might be below danger level, they felt. In September, the rate of total dissolved solid was under the range of 100 to 150 milligram per litre. Now it is 200 milligram per litre. The total dissolved oxygen rate was 7.9, which is the same as now. "Because of extensive floods every year, Assam reeks under water for many days. So the capacity to tolerate high turbidity also increases for the fishes of the Brahmaputra and other rivers. But if this condition continues for many days, it will harm fishes," the principal scientist and acting head of Guwahati-based CIFRI Northeast Regional Centre, B.K. Bhattacharjya, said. Simanksu Borah, another scientist with the institute, who was also a member of the team that recently had visited the Siang, said: "Due to high turbidity this time, no migratory fish came to our notice. Even local fishermen said they could not catch migratory fishes in this season.

Generally due to low temperature in the upper part of the river, fishes such as mahseer swim downstream. But this year the fish may have opted for other tributaries." The CIFRI team had collected fish and water samples. The institute has also sent some samples to Jorhat-based regional centre of National Bureau of Soil Survey and Land Use Planning (NBSSLUP). Some samples were also sent to the Calcutta-based laboratory of the CIFRI. "We have got the sample from the CIFRI and started an investigation," a scientist with NBSSLUP, Sanjay Kumar Ray, said.

Assam: Fishermen worried over depleting fish stock

http://www.assamtribune.com/scripts/detailsnew.asp?id=dec1117/state051

With the Brahmaputra getting contaminated, the fish stock in the mighty river, has started depleting in Dhubri areas for the past few days. The district is known for different species of fish, but with the abnormal deviations in the colour and quality of its water, the fish stock has started deteriorating worrying fishermen. Fishermen who generally earn their daily bread and butter by selling fish are now in a quandary. They have observed that the water of the Brahmaputra has turned muddy which has in turn affected the fish. Gautam Das, a fisherman and supplier of Brahmaputra fish to various markets, said that during the winter season the Brahmaputra is full of with different species of fish, including ari, borali, chital, rohu and katla. However, these days, the fishermen are able to get a very small quantity while catching fish. He also stated that the chingri fish has suddenly disappeared from the river as none of the fisherman has caught it yet.

“The water has become polluted and it is unfit for many of the fish varieties and the fish of the Brahmaputra has migrated to the downstream to Bangladesh areas in search of safer water bodies”, Das claimed. However, the fish stock and the water quality in other rivers of the district namely Gangadhur, Gadadhur, Champamati, Gaurang and Tipkai have not been affected. Kabil Sk, a fish wholesaler at Dhubri New Market area said, “What is more interesting is that this
season the fish stock of the rivers has started depleting. The situation is alarming. Although we have very little knowledge about the pollution factor, yet we believe that something is wrong in the water of the mighty Brahmaputra,” he observed while sharing information about the depletion of fish stock in the district. Not only fish, but the migratory birds have also disappeared from the banks of the Brahmaputra. According to Sarfaraj Hussain Khan, a local environmentalist, several species of migratory birds are yet to arrive in the Brahmaputra. “We have observed that birds have started migrating to nearby beels and rivers instead of the Brahmaputra”, Khan claimed without giving any scientific data.

Assam: These youngsters from Assam are netting healthy incomes from fish seeds


Taking advantage of the plentiful water bodies in Assam, the production and supply of fertilised fish eggs has emerged as a promising and sustainable livelihood for unemployed youth in rural Assam. Gohainpukhuri village in Narayanpur administrative block of Lakhimpur district has a predominant population of Mising community. Located on the banks of the Luitsuti river, a tributary of Subansiri River, agriculture is the main occupation of the Mising of Gohainpukhuri and neighboring areas. Around 90 percent of the households in the village possess a pond with an average size of 1.5 bigha (1 bigha = 1,332 sq m) and most of the ponds are underutilised. Till recently, fish rearing was not a profitable and popular livelihood option in Gohainpukhuri because of low production. That has now changed. The low production of fish is due to unavailability of quality fish seeds (fertilised fish eggs), infrastructure, and lack of awareness about the economic significance of scientific rearing.

The other bottlenecks include poor feeding practices and high cost of feeds and poor pond management. Of the constraints, unavailability of good quality fish seeds was found to be very critical. Potential of fisheries Assam can be called a non-vegetarian state, as over 95 percent of the population eats fish. The state is also dotted with water bodies such as beels, ponds and swamps — a total of around 3.73 lakh water bodies, covering an area of 2.85 lakh ha. However, the productivity per ha of water body is low, as only 5 percent of the area is under scientific fish cultivation. While the current production of fish in Assam is 2.97 lakh metric ton (MT), the demand is 3.31 lakh MT, according to Fishery Sector at a Glance, Assam, 2015-16. Thus, the state incurs a deficit of 93.15 MT per day, costing the exchequer around Rs 1.15 crore. The deficit is met by imports from other states, mainly Andhra Pradesh and West Bengal, and sometimes from neighbouring Bangladesh. Presently, fish yield is less than 1 MT per ha through traditional rearing and about 2.2 MT under improved rearing.

By training unemployed educated youth in improved rearing practices, the production can be increased. Given the availability of water bodies and high demand, there is ample scope for developing fisheries as an alternate means of livelihood in water bodies protected by
embankments. Fisheries for jobs Centre for Microfinance and Livelihood (CML), a non-profit working in the Northeast, had identified the need for promoting producers who could provide relevant services to fish cultivators and supply good quality fry, fingerling and yearling — the three indicating the stages of the fish’s growth. The best possible solution was to train local unemployed youth in production and supply of quality fish seed. This would also promote self-employment.

The Mising Autonomous Council (MAC) along with CML, an initiative of Tata Trusts, started training unemployed local youth in fish seed production. Pramod Doley, an educated youth in Gohainpukhuri of Lakhimpur district, was unemployed after having worked as a private taxi driver and on short-term contractual work. The job did not provide him with a steady income or independence at work. Though the family was food sufficient, cash flow was a big concern. So he was exploring other avenues, as he had to support his family, including a widowed sister-in-law and two nephews. After the demise of his elder brother, Pramod had to support the family and he started working in the agriculture field and rearing fishes. The family owns two ponds of 0.5 acre each but used to rear fish primarily for domestic consumption. He was not aware of improved cultivation practices. Hence, the net income from the total pond area was as low as Rs 5,000 per annum.

Netting an income Pramod was identified as one of the community-based service providers for the fish farmers from 91 households with a command area of 10.61 ha. Pramod underwent training on the importance of fish seeds, their production, pond development, stocking, feed and pond management, harvest, and sale. In a short span of time, Pramod proved himself as a good seed supplier and a sincere service provider in the cluster. Promod visited Pabhoi Greens, a fish hatchery owned by Neelam Datta at Biswanath Chariali. After the visit, Doley realised that fish seed rearing in itself could be a self-sustainable livelihood option. Training sessions and exposure visits were critical drives for him. “The exposure visit to Pabhoi farm boosted my confidence. I learned fundamental aspects of fish seed production,” Promod said. “Learning the preparation and application of organic manure, preparation of homemade feed, liming, netting, monitoring water quality, etc., helped me a lot.”

After the training and exposure program, Promod stocked one major carp namely, mrigal and two minor carps kuhi and bata in the first season. He stocked spawn of rohu in two ponds that he had taken on lease at Rs 4,000 per annum. In addition to selling yearlings to farmers in the Gohainpukhuri cluster, he sold to 65 farmers outside the local farmer producer group. From the net income of nearly Rs 3.18 lakh, he paid his partner’s investment and profit share, earning nearly Rs 2.78 lakh for himself. Apart from this, he earned Rs 26,000 by rearing table fish katla, rohu and mrigal. It was a good journey for Promod at the end of the 9-month cycle. “It was the highest income in my life from fishery,” he said excitedly. After clearing the loans he had taken during his contractual work, he has taken two more ponds on lease, to expand his business. He has become an inspiration for other youth in taking up fishery as a self-employment opportunity.
Way ahead This year, 10 more youth have been trained in the Gohainpukhuri cluster and provided with viable business plans. The challenges in this activity include receiving timely payment and competition from existing fish seed suppliers. To overcome challenges such as sale of output, the producers need to develop a good rapport and gain trust of farmers. The experience of the youth shows that fish seed rearing could be a profitable business and provide self-employment. This would make a significant dent in the high rural unemployment that exists in the countryside of Assam. This model can be promoted in other blocks and districts by engaging more youth according to the demand. However proper grooming and handholding is an important prerequisite in promoting the model.

Assam: Muddy Waters In Brahmaputra Threaten Livelihood Of Boatmen, Fishermen


In Dibrugarh, Assam, the lives of thousands of residents has run into muddy waters. Every day, passenger boats ferry thousands of people from Silapathar in the northern bank of the Brahmaputra to the southern bank's tea city Dibrugarh for work, health services and education. But with water levels already decreasing, the increasing turbidity of the river poses a challenge for boatmen and fishermen whose livelihoods depend on the river. The rapid increase in turbidity can lead to more sedimentation, which is a boatman's nightmare. Bhaikon Gam, a boatman, says "The water level is already decreasing and this water has turned muddy thus we are finding it difficult to ply out baits and sometimes at even night we need to ply medical emergency cases, it seems that will be difficult." But difficulty in navigating boats is not the only effect the increasing murkiness is having on the people. Dhananjay, another boatman, says that they have observed something unusual over the last few weeks.

"We live and work on the river. We use the river water for everything but now we are not able to use. Some people are complaining about skin diseases after using this muddy water" he said. The water in the upper reaches of the Brahmaputra is increasingly turning muddy and extremely turbid. A recent test conducted in the upper reaches of the Brahmaputra showed a Nephelometric Turbidity Unit (NTU) - a measure of the concentration of suspended particulates in a liquid - of 404, while the turbidity in the middle reaches near Tezpur was measured at 195 NTU. The permissible level for human consumption, in comparison, is 5 NTU. The Assam government has already issued an alert and is now testing water samples even in middle and lower stream of Brahmaputra. The rising turbidity has had a direct effect on fishermen and their livelihood, as their catch has gone down as a result of murkier waters.

A visit to the Rahmaria fishing village reveals gloomy faces. "Earlier we earned a lot during winter fishing season, but in a fortnight the water has turned muddy, and we have lost over Rs. 50 thousand and our livelihood is at stake. The water is turbid and it's like cement laden, muddy"
Madhabdev Das, a fisherman from Rahmaria told NDTV. While boatmen and fishermen, whose livelihoods depend directly on the water, have been affected, even a few cattle in the area died from consuming the brackish water of the Brahmaputra.

Assam: Measures to boost fish production in Barak Valley

http://www.sentinelassam.com/story/news/14/measures-to-boost-fish-production-in-barak-valley/2017-12-08/1/328318#.WipTVDRx3IU

The district fishery development office in coordination with the fish development offices of Hailakandi and Karimganj is concentrating on scientific measures to boost up fish production in Barak Valley. According to Raqibul Haque, fishery development officer, Cachar, convenor of the programme, the total fish production in the valley is around 30,460 mt while the demand is 40,000 mt. Giving further information, Raqibul Haque said of the total fish produced, 4 to 5 % is exported to Mizoram and Meghalaya which have shortage of fish supply despite abundant river system and also the possibilities of fish rearing”. He added to say in order to meet the deficit in demand, 9 mt fish is brought from West Bengal, Andhra Pradesh and Uttar Pradesh. Taking into account the overall shortage of fish production and the gap between demand and supply, one of the measures adopted by the department is to provide training in fingerling rearing and fish production, training to farmers of the three districts of Cachar, Karimganj and Hailakandi has been taken up which started from December 6 to conclude on December 9. The 4 day training has 100 farmers who are equally divided in two batches.

The emphasis during this training period is on seed management, fingerling rearing, wetland management and production. Such training is conducted from time to time. The farmers are detailed about the latest method and technology by experts on the subject. The training to first batch is concluded, and the training to second batch has begun. The entire programme is financed and supported by National Fish Development Board, Hyderabad. Kapil Debnath is acting as resource person to provide vital information to the farmers on fish farming. He is from Krishi Vigyan Kendra, Arunachal. Other persons with expertise are Mohan Teron, Fishery Development Officer, Hailakandi, S K Das, Assistant Fishery Officer, Cachar, Dr Manoranjan Sarkar, surgeon (Veterinary Department), Dr Sarkar is training the farmers on how to contain spread of diseases on fishes. According to a study of the ecology department of Assam University, the fishes of water bodies and rivers are found to contain cancerous growth syndrome. It is due to heavy pollution of the waters.

Others coordinating the training are Raqibul Haque and Ranjit Dev, fishery development officer, Cachar. The team of experts and fishery officers according to the guidelines are making spot verification of fish farming by farmers and their fisheries. The farmers during the visit are given inputs about latest technology and how to rear the fingerlings in a healthy and conducive manner. Nazrul Islam among all the farmers has the largest fish farming spread over an area of 300
bighas of land. He owns in all 24 fisheries. The team of experts also visited fish seed farming at Bhaga which is run and managed by the state government and organized by district fishery development office, Silchar. During the last Namami Barak festival, the fishery department sold out 600 kg of fish of varieties. The consumers made a beeline for the fish stall set up in the food zone. The preference for the fishes in the stall has been due to the fact that they were all from fresh running water. Raqibul Haque pointed out that the fishery department has only one regret, it could not meet the huge demand for the fish.

Assam: Riverbank erosion has rendered thousands homeless in Assam and yet it's not treated as an emergency


"The pain that riverbank erosion has caused is immense. My land was eaten away and I had to constantly shift. In my previous village Ramapara, I had shift 20 times!" says Zakir Hussain of Dighir Pathar village in Barpeta District of Assam. "The river would constantly gnaw at the banks. I had to shift my house constantly to escape the river's wrath." Like Hussain, there are a large number of people who suffer continuous displacement and hardship in Barpeta, which has suffered particularly due to riverbank erosion. In 2007 alone, around 440 hectares of land was eroded and around 76 villages and some 2,500 families were affected from riverbank erosion. The total loss of property was around Rs 33 million. Around 6% of the district is affected by riverbank erosion. The Brahmaputra River and its tributaries like Beki River cause riverbank erosion in the district.

The calamity caused by riverbank erosion in Barpeta is symptomatic to the problem faced across the Ganga-Brahmaputra flood plains from bank erosion. The damage it causes to the poor and vulnerable is no less than that from the annual floods in Assam and several other states in the country. Serious problem The intensity of the problem can be gauged from the fact that the total land lost due to bank erosion caused by the Brahmaputra River in Assam alone has ranged between 72.5 sq. km per year and 80 sq. km per year between 1997 and 2007-2008. Further, property worth around Rs 182.24 crore was damaged as a result of bank erosion. Floods, being classified as a disaster, elicit immediate response from the government in the form of rescue, relief, compensation and sanctions for repair of infrastructure. But hazards like riverbank erosion that continuously affects the poorest and the most impoverished sections of the community residing in the Ganga-Brahmaputra flood plains, is not classified as a disaster. There is a pressing need for declaring riverbank erosion as a disaster. The action on bank erosion is currently restricted to bank strengthening through reinforced concrete or bamboo porcupines.

But one needs to take a people-centric approach for addressing the problems emanating from river bank erosion that would contribute to the resilience building of the erosion-affected people
through the provision of compensation, rehabilitation and an emphasis on human resource development amongst the erosion affected population through skill building initiatives. Severe impact Riverbank erosion is a natural phenomenon that results in the removal of material from the banks of a river. Most of the rivers in the Ganga-Brahmaputra basin are essentially braided alluvial channels that cause erosion through a combination of three different processes. The pre-weakening process involves repeated cycles of wetting and drying of the bank, which prepares it for erosion.

Thereafter, two processes begin to operate simultaneously. The particles and aggregates are directly taken away by fluvial action and subsequently the bank succumbs, resulting in a mass failure that involves the collapse, slumping and sliding of the material from the bank and into the channel. While the phenomenon is natural, the impact it has is disastrous on the life and livelihoods of the riparian community who are settled on or close to the unstable banks of these channels. The resettlement is often an involuntary decision as the land gets eroded. Given the impoverished state of the riparian population, the resettlement happens close to the river, since land prices increase as one moves farther away from the river. Multiple displacements In a study on the riverbank erosion-affected families in 44 villages in Barpeta in 2015-16, we found that the loss of land was the most important loss faced by the families. Land, the most important asset possessed by any rural household, forms the basis of economic and social identity of the household.

The bank erosion rendered the households landless and homeless and the families face involuntary displacement. Their hitherto primary occupation, agriculture, takes a fatal blow. While the development induced displacement tend to displace people once, the families affected by bank erosion are subjected to multiple displacement. The loss of land and the resulting displacement also reduces the livestock holding. Livestock is usually seen as a liquid asset on which the rural household can fall back during times of crisis. But as agricultural land is lost to the river, the availability of fodder also gets reduced. Hence keeping livestock becomes an expensive proposition. Similarly, the loss of homestead land also means a loss of small water bodies located in the homestead, where the riverine population would otherwise engage in fishery for self-consumption.

We found that post-displacement the consumption of fish drops among the affected population. Occupational insecurity The landlessness among the bank erosion affected community breeds certain kind of occupational insecurity. As people are forced to move out of agriculture and get engaged in labor or small business, there is an increased demand for family labor. The demand increases with the increase in the size of the household. The average family size among the erosion-affected people in Barpeta was seven, compared with a national average of five. In the absence of proper skill training, a large number of the affected people, who are also young, are forced to enter the unorganized labor market and undertake migration. This disrupts the normal functioning of a household. Children are often the prime victims of this because they have to
dropout from schools following the relocation of the household. Apart from the requisite skills, lack of access to cheap credit also constrains the erosion-affected towards undertaking superior non-farm occupations.

In Barpeta, the credit gap is usually filled up by moneylenders, who would provide credit to the people at exorbitantly high rates of interest, often as high as 40% on the principle amount. Reduction of farm-based livelihoods, limited option for superior non-farm livelihoods and lack of access to formal credit together keeps the erosion-affected household in a state of impoverishment. As have been found among the bank erosion-affected people in Bangladesh, the affected households in Barpeta also fall back on the informal social networks of the community (colloquially called samaj) during times of crisis. The samaj plays an important role in helping the affected family to perform social obligations like funeral, marriage, in providing a collective identity and in facilitating collective action towards combating the bank erosion through constructive works like construction of crude embankments with the locally available resources or the repair of bamboo bridges.

Disaster classification Given the kind of impoverishment that riverbank erosion imprints on the life and livelihoods of the riparian communities, it is important to go beyond the usual engineering-centric bank strengthening activity and to build an action plan that puts the affected people at the center of the planning process. A series of actions are required for this. First, riverbank erosion has to be classified as a disaster. Currently, it is not so classified and the affected population is not entitled to get any relief through compensation. Recent modifications in the guidelines for the State Disaster Relief Fund (SDRF) provisions the state government to use around 10% of the SDRF to provide relief to people who are affected by "disasters within the local context of the state". Since 2015, the Government of Assam has also designed a scheme for rehabilitation of erosion-affected people.

There is a need that riverbank erosion, like floods, should automatically qualify as a disaster and their qualification should not depend on the whims of the state government. Second, emphasis needs to be placed on skill development to harness the demographic dividend that exists in such areas. Skill enhancement is particularly important among this section of the relatively young population because skills are an asset that serially displaced community can continue to possess, unlike other assets like land and livestock. Third, provisions should be made to improve the access to formal sources of credit that would enhance and not constrain the developmental process. One could use the informal social networks for starting formal groups of credit circulation through the creation of self-help groups (SHGs).

Assam: Centre of South East Asia: Patowary

Minister of Industries, Commerce, Transport and Parliamentary Affairs Chandra Mohan Patowary on Monday said that Assam is the centre of South East Asia. Addressing the gathering at Banga Bhawan after launching the theme song of ensuing river festival Namami Barak, Patowary said “Assam shares 4800-km of international border with neighbouring countries. The State has immense potential and there is a market for 200 million consumers which need to be exploited for the greater interest of Assam and South East.” Stressing on the Act East policy as envisioned by the Government, the Transport Minister said that dredging of river Barak which is a declared as a National Waterway16 shall open new vistas for the people of this valley for setting up of new industries and commerce and Namami Barak shall add fillip towards the efforts.

The Minister mocked the Opposition for its remarks to boycott the first ever river festival and urged them to shun negative attempts towards developing the region. Fish production: Besides the major objective of river dredging and presentation of the socio-economic potential of Barak Valley before the global audience, the ensuing river festival of Namami Barak will also be an occasion to promote fish production here, said Minister of Fisheries Parimal Suklabaidya. “We wanted to promote the know-how of fish production and encourage the fisherman in learning the methods to maximise the growth of fish and there can be no better a stage than the river festival to be held here. Fish of river Barak is known for its quality and hence it is quite fitting to organise a festival wherein people can learn about fish cultivation,” Suklabaidya told The Assam Tribune on Tuesday.

On the other hand, asked about if the Department of Fisheries is thinking about measures to contain the escalating fish prices across the State, Suklabaidya said “the Department is focused on fish production while the market prices are regulated by the FishFed. However, efforts are initiated to amalgamate the FishFed with the Department of Fisheries. Once this is done, we can chalk out a plan to control fish prices in the State.”

**Assam: Push to save hilsa**


The Assam fisheries department has issued an advisory to deputy commissioners of four districts on measures to improve hilsa production and prevent excess fishing to ensure its conservation. The advisory to Dhubri, Goalpara, South Salmara-Mankachar and Bongaigaon districts has banned fishing in different stretches of the Brahmaputra between October and December and April and June to allow the young hilsa, locally called jatka, which are less than 23cm in length, to return to the sea. In the past, hilsa was not harvested between Dashami and Saraswati puja (October to January) as it is the time when juvenile fish born upstream make their way to the sea. But fishermen have been ignoring calls to leave the jatka alone to repopulate the species since
the demand for hilsa has been growing. Global warming has also led to gradual depletion of hilsa breeding grounds, reducing its population further.

The advent of fine fishing nets and environmental degradation of the rivers has worsened the situation. Acting on the advisory, the Dhubri administration has issued a directive to the district fishery development officer to create awareness and carry out raids, if necessary, to prevent excess fishing of jatka. Appreciating the initiative of the fisheries department, fish lovers of Dhubri have urged the authority concerned to organise a hilsa festival in the town. "Since the past couple of years, the availability of hilsa in Dhubri markets has risen. Hence, not only fish lovers but traders from outside are thronging the markets to buy hilsa in large quantities. Therefore, it will be better to organise a fish festival in Dhubri," a schoolteacher said. A few months ago, the price of hilsa had shot up to Rs 800 to Rs 900 per kg but the easy availability of hilsa in the Brahmaputra in Dhubri district, has led to the prices dropping to Rs 250 from Rs 450 per kg.

Assam: State completes final assessment of flood damage

http://www.assamtribune.com/scripts/detailsnew.asp?id=nov0217/at061

Assam faced one of the most devastating floods this year and the total loss in terms of money has been estimated to the tune of more than Rs 4,215 crore. The State government will soon submit a detailed memorandum to the Centre with sector-wise damage and the funds required to repair the same. Now it is up to the Centre to take a final decision on the amount of funds to be released to the State to tide over the crisis. Highly placed official sources told The Assam Tribune that the State government had earlier submitted a memorandum to the Centre based on preliminary assessment of the damage. But the actual assessment could be made only after the flood water receded and it took some time to compile the records with details of the funds that would be required to repair the damage. As per the assessment, the highest amount would be required by the water resources department. Repair of 26 breaches that occurred in the floods would require an amount of Rs 135.22 crore, while an amount of Rs 2,864.78 crore would be required for repairing the damage caused to the embankments and other flood control structures, besides river bank stabilization works.

Floods this year took a heavy toll on the road communication network in the State and as per the assessment, Rs 595.12 crore would be required to repair the damage. As many as 1,730 roads were damaged and 307 breaches occurred on the roads, while five bridges and eight culverts were washed away. In addition to that, a number of culverts, approaches to the bridges, etc., were washed away in the floods. As per the assessment, Rs 226.04 crore would be required to provide assistance to the farmers whose crops were damaged in the floods, while Rs 3.76 crore would be required to pay compensation for the loss of cattle heads. The fishery department will require around Rs 119 crore for repairing the flood damage. Fish ponds of around 6,245 hectares, fish
ponds with rice cultivation, besides 55 boats and 300 nets of the department were damaged in the floods. The handicrafts and handloom department will require around Rs 14.17 crore as 76 work sheds, raw materials, tools, etc., were damaged in the floods. Quite a large number of houses were also damaged in the floods and an amount of Rs 90.94 crore will be required to pay compensation to the house-owners.

As per the assessment made by the government, 404 concrete houses and 3,902 kutchha houses were fully damaged, while a substantial number of houses were partially damaged. More than 8,000 huts were also destroyed in the floods. Eleven subcentres of the animal husbandry and veterinary department were fully damaged in the floods, while 24 others were partially damaged. A number of cattle sheds and quarters were also damaged and it would require an amount of Rs 12.80 crore for their repair. At least 288 piped water supply schemes, more than 3,000 spot water sources and more than 10,000 latrines of the public health engineering department were damaged in the floods and Rs 17.64 crore will be required for repair works. More than Rs 9 crore would be required for repairing the damaged anganwadi centres of the social welfare department, while the power department will need Rs 4.08 crore for repairing the damage.

The forest department will need Rs 12.37 crore to repair the patrolling roads, high lands, nursery, etc. Sources revealed that 127 health institutions were damaged and to repair these and to procure the damaged equipment, an amount of Rs 48 crore would be required. The floods also inflicted heavy damage to schools as according to records, around a hundred elementary schools were fully damaged and more than 2,000 were partially damaged. Eleven schools were washed away. The education department will need Rs 26.77 crore to repair the flood damage. The urban development department has also given an assessment of Rs 28.09 crore for repairing the damage caused in the floods.

**Assam: Fisheries dept moves DCs to prevent hilsa catching**


Local fishermen are catching tonnes of hilsa (also known as ilish) fish in the Brahmaputra near Tilapara, south of Chandardinga Hill, beside Chapar, in Dhubri district. This is the breeding season for the hilsas and catching hilsa is banned in neighbouring Bangladesh during this season. It is the national fish of Bangladesh. It is also popular in India, especially in West Bengal, Odisha, Tripura, Assam, southern Gujarat and Mizoram. It is also exported globally. According to sources in the Fisheries Department, the Department has requested the Deputy Commissioners (DCs) concerned to take steps locally to prevent the practice of catching hilsa fish during this breeding season. The District Fisheries Development Officers have also been asked to take up the matter in due earnest with their respective DCs. The hilsa is a brackish fish. The confluence of the Brahmaputra with the Bay of Bengal, where water is a mixture of saline and fresh water, is its habitat.
At an interval of two to three years, fishes of this species enter the Assam part of the Brahmaputra for breeding purpose. This time also, schools of the fishes of this species have entered the Assam part of the Brahmaputra for the purpose and a huge portion of them has been caught by the local fishermen in the above area, which is an ideal ground for breeding. Though as per the provisions of the Assam Fisheries Act, the Fisheries Department can prohibit catching of other species of fish between April 1 and July 15, this piece of legislation has no provision for such steps in case of the hilsa, the sources said. The sources also maintained that there has been a slump in such activities in the past couple of days. In this respect, it may be mentioned here that the Government of the neighbouring Bangladesh has banned catching, transportation, storing and selling of hilsa during this breeding season and it has been dealing any violation of this order with a firm hand. It is also trying to generate awareness among the common people on the need to give up the practice of catching hilsa during this season. The fish contributes about 12 per cent of the total fish production and about 1 per cent of the gross domestic product (GDP) in Bangladesh.

Assam: Hilsa hurrah in Dhubri markets

http://www.assamtribune.com/scripts/detailsnew.asp?id=oct1217/state051

Fish lovers had a great time here as hilsa, one of the most preferred fish variety, flooded the local markets in the district, following a bumper catch. According to regular fish buyers, such an ‘unbelievable’ drop in price of hilsa has happened after almost four years. The unusually high yield has also resulted in a drastic fall in the price of the fish. Thanks to the excess supply, hilsa, which normally costs Rs 900-1,200 a kg depending on the size of the fish, is now available at Rs 150-300 a kilo throughout the district. Traders here also believe that this year the availability of hilsa is considered much more compared to the previous years. “Steamed hilsa is favourite among most of the people from this area. When we are getting hilsa at such a low price, why opt for other varieties,” said Gowahar Khan, a regular fish buyer, adding, “with the drop in price of hilsa, the poor and marginalised section of the society can easily afford this variety and enjoy their platter of hilsa, which is otherwise a distant dream for them.”

However, not only the fish lovers here are taking advantage of this price drop, traders from neighbouring West Bengal are thronging the markets of Dhubri in great numbers to buy hilsa in bulk. Kabil SK, a fish wholesaler of the New Market here, said although at this time of the year this fish variety becomes available in this area, in the last few years, its availability has increased in Birchingchar, Jaleshwar, Fakirganj and Dhubri and its nearby river island areas. He said if this fish variety could be preserved for a longer period, both sellers and buyers could be benefited. “But hilsa can’t be preserved for more than 15 days,” he added. Local environmentalist Pramod Roy said if such bulk fishing of this fish variety continues, it will affect the ecosystem of the river in the long run. “This fish variety travels upstream from the rivers of Bangladesh to Assam to lay eggs, but they are caught in the Dhubri area at their pregnant state. This fish variety has
changed its travel route and is reaching Dhubri in large numbers. Moreover, the depth of the Brahmaputra has decreased and fishermen now-a-days use new types of nets and advanced techniques to catch fish,” said Roy.

**Assam: Fishing for economic purposes prohibited**


Under Section 144 of Cr PC, a directive was issued by the Additional District Magistrate on Wednesday prohibiting fishing for economic purposes in certain areas falling under the 2nd and 3rd Fishery Blocks of the district. This order comes in the wake of disturbances being reported from areas covering from Dibru Reserve Forest in the north and Rangmola, Khamtigowali, Gereki Nepali, Gereki Mirigaon Nefafu Tea Estate, Balijan in the south, first block of Dibru River in the east and Mothola Tea Estate in the west, falling under the two aforesaid blocks.

Moreover, the aforesaid fishery blocks will remain under the supervision of Chabua Revenue Circle Officer till a valid conclusion based on the directive issued by National Green Tribunal is reached on the decision of fishing for economic purpose in the entire fishery block. In addition, for maintaining public peace and order in the aforesaid areas, Section 144 has been issued in the matter relating to fishing for economic purposes, assembly of more than five persons in the above places and building of embankments. Any person found violating the directive will be duly tried under the legal provisions of Section 188 of the Indian Penal Code.

**Assam: Gangadhar river likely to swallow up Golakganj in a few years**


Due to unabated heavy erosion by the Gangadhar river, Golakganj, the gateway of Assam, Bangladesh and North Bengal, is likely to disappear from the map. The town was nerve centre of the business community up to 1970. The meaning of ‘ganj’ is a centre of business. Golak Chandra Barua of the erstwhile Gauripur Royal Estate donated land for construction of the railway station at Golakganj during the British rule and as a sign of his benevolent act, the original name of South Tokrerchara was changed into ‘Golak’. Golok added ganj made it as Golakganj. From that time onwards the place was known as Golakganj. The turbulent Gangadhar river flows along the Golakganj Bazar area. Once, the river was the source of income of the fishing community and a tasteful variety of fish called ‘Gharaiya Rui’ was available but those days are gone. There was a big field on the bank of the river and there were a number of jute godowns beside the field. There was also an aluminium factory, a number of rich families and an attractive Shiva temple and a banyan tree.
Hundreds of devotees performed Shiva Chaturdashi every year and a big mela was also held. The railway bridge over the Gangadhar river which was opened in 1901 served the purpose of transportation for all the traders of the area and North Bengal. In 1974, the Gangadhar washed away the approach road of the NH-31 but no effective measures were seen taken by the concerned authority and, as a result, the water of the restless river began to erode a major portion of the eastern bank and the road communication was totally disrupted causing untold hardship to lakhs of people living in the western part of the river. The unabated erosion swallowed a vast area of the eastern bank and as a result the trading community was compelled to shift the godowns and the aluminium factory. A major area of the police station was also swallowed by the river. Now the entire area is in the middle of the river.

The NH-31 was diverted two km away from Golakganj and a footbridge named Bir Chilarai Setu was constructed eight km away. Golakganj has now virtually become a deserted place. The river takes a U-turn from Pestarghat area and in the last two years, North Tokrerchara, a nearby village of Golakganj was washed away by the restless river and the villagers had to take shelter on the embankment. No measures for their rehabilitation were seen undertaken. The only crematorium for the Hindu community on the bank of the river was washed away and only a part of it is standing in the middle of the river and it has turned into a river island having no communication.

Temporary measures were taken to check erosion but that too were of no use. The former Congress MLA and the MP visited the place of erosion and assured the people to save their lives and property from erosion but nothing was taken up. The people have been left at the mercy of God. A major part of the Rahmatganj Madrassa has already gone under the river. The people of the area have urged the government to undertake permanent protection to check erosion without which Golakganj may disappear from the map of the district of Dhubri like South Salmara on the south bank of the Brahmaputra within a few years.

**Assam: Flash flood causes huge damages in Mankachar area**


Due to incessant rains in the Meghalya hills for the past few days, a devastating flash flood occurred in the entire Kalapani area under Mankachar revenue circle of South Salmara-Mankachar district on Sunday and caused huge damages to agricultural fields and fisheries. The rush of flood water, while it came down from the hills, was so fast that within a few minutes three wooden bridges on Kalo river located at Boisabari, Tokpara and Lakhishari were washed away causing total disruption of road communication in greater Kalapani areas. The flash flood caused maximum damages in agricultural fields where thousands of hectares of standing sali paddy along with vegetables were submerged. Almost 50 villages under three gaon panchayats have been directly affected by the flash flood.
Maximum damage was suffered by farmers with fisheries. Sources informed that more than 600 fisheries with full grown fishes were totally submerged and damaged and its worth would be more than rupees three crore. A local fish farmer, Jomser Ali informed this Correspondent that he had three fisheries covering about 20 bighas of land with mature fishes weighing not less than one-and-a-half kilogram each, and its market value would be more than Rs 5 lakh. All his three fisheries have been totally damaged by the flash flood. The local people have alleged that the district administration has not given any importance towards the damage. It has been learnt that an ADC from the district administration visited the affected areas after 36 hours of the devastation.

Assam: Subansiri erosion displaces 23 families

Unabated erosion by the Subansiri river in the Bihpuria Revenue Circle of Lakhimpur district has left 23 families displaced. The erosion worst-hit area is in Kolbari Chuburi under Bahgora-Dhunaguri Gaon Panchayat of Bihpuria Rural Development Block where villagers have been affected since May this year. Subansiri, which has encircled the area in its changing course, has swallowed more than 60 per cent of the land of the area making the village an island. As many as 12 families, displaced by the continued erosion, have been now forced to take makeshift arrangements for their stay at the opposite side of the erosion where massive sand deposits are created. Many of them are struggling for a shelter at highlands and some of them are forced to stay with their relatives – away from their original place of living.

Agriculture lands that grow mustard, pulses and rice have been lost in the erosion by the river. The erosion and recent flood have also damaged the Kolbari Chuburi LP School, the only school of the region, depriving hundreds of students from regular classes. Fisheries damaged: The recent flood in Lakhimpur district has destroyed fisheries measuring 1449.4 hectares of land affecting thousands of entrepreneurs. According to the district Fishery Department, Lakhimpur’s 7,889 fishery entrepreneurs from 298 villages of all the nine rural development blocks of the district have been hit by the loss of fisheries in floods so far.

Assam : Will Dredging of Brahmaputra Serve the Purpose?

The navigation potential of the Brahmaputra is immense but in desperate need of an overhaul. Cargo vessels are rarely seen and passengers are transported in rickety wooden boats. But developing the Brahmaputra into an international waterway, as envisaged in the National Waterways Act, could give the state of Assam and the rest of India's northeast an edge. This would make it India's link to ASEAN nations as the government's Act East policy comes to the fore. The Brahmaputra National Waterway 2-- an 890 kilometre-long reach of the river from
Sadiya in Assam to the Bangladesh border—could act as the economic corridor to international ports such as Chittagong in Bangladesh and Haldia Port in West Bengal, boosting trade with southeast Asian countries. To realise such a future, a tripartite agreement for dredging the Brahmaputra was signed between the Assam government on one hand and the Indian inland waterways and national highways authorities on the other at the closing ceremony of the Namami Brahmaputra Festival in Guwahati in April.

Nitin Gadkari, India's union minister of road transport, highways and shipping, hoped that the project would change the economic livelihoods for people in Assam. He announced that the national government would provide 400 billion rupees (USD 6.2 billion) for the construction of the ambitious Brahmaputra Express Highways on both banks of the river. Deemed one of the largest infrastructure projects in the northeast, the 6.4 billion rupee (USD 998 million) highway will stretch 840 kilometres along both banks of the Brahmaputra between Sadiya and Dhubri. The project was found to be technically feasible by the water resource ministry which, after a preliminary survey, offered to help in the work to stabilise both banks, find sustainable solutions to flooding and erosion, and develop the waterways for navigation. Meanwhile, the World Bank has given 98 million rupees (1.5 million) to the Inland Water Transport infrastructure development project to support its work in dredging the river to maximise its navigational potential and introducing safe, modern and economical passenger vessels and river cruisers for tourists.

The IWT operates 100 ferry services on the Brahmaputra and Barak rivers and their tributaries, used by around 6.9 million people annually. The project of the IWT Directorate for the Brahmaputra--a long term strategic plan, capacity development and improving passenger ferry services--has already started said M Rahman, joint director of the IWT, adding that it would also study the natural flow of the river and the impact of the project on aquatic biodiversity and riparians. Dredging to control floods? "Dredging of the Brahmaputra and Barak rivers will not only help to deal with the problem of floods, which affects Assam and Bangladesh, but also improve the navigation facilities in the rivers, which can strengthen trade and commerce between India and its neighbour through riverine routes," said Sarbananda Sonowal, chief minister of Assam, at the inaugural session of the 8th India-Bangladesh Friendship Dialogue on July 2.

According to the chief minister, dredging 1,300 kilometres of the Brahmaputra would also provide material needed to build the highway along its banks, a task for which state government would seek the support and cooperation of Bangladesh. Dredging the Brahmaputra and its tributaries is not a new idea. "During British rule, dredging was done as a protective measure from floods," says PK Dutta, an engineer who submitted the dredging plans to Prime Minister Modi. A more recent attempt to dredge the Assam-stretch of the Brahmaputra in 1974 was largely unsuccessful. Dutta's plan envisages restricting the Brahmaputra within a-two kilometre wide course and using the dredged silt to reclaim the land lost to erosion to build the highways. The current plan remains the same but with one change that the channel to be dredged has been
limited to 45 metres. However, no Detailed Project Report (DPR) is available for this project. Economically not viable But the project, set to start in September, has been mired in controversy with experts suspecting the dredging is easier said than done.

But the project, set to start in September, has been mired in controversy with experts suspecting the dredging is easier said than done. An expert team from the Dredging Corporation of India (DCI) visited Assam in September 2016 and reported that a detailed morphological and hydrological study of the river was needed to explore the possibilities for dredging its huge sediment deposits. With an annual discharge rate of around 20,000 cubic metres per second at its mouth, the river is the fourth biggest in terms of discharge. Having such a large drainage area, the Brahmaputra is heavily charged with sediment and as a result of siltation has been steadily expanding--from two kilometres near Guwahati to 14 kilometres at places such as Sadiya and Dibrugarh. This is considered to be a major hurdle to dredging. The Brahmaputra is also a heavily braided river--another impediment to the plan.

"The mighty Brahmaputra and its tributaries carry huge amounts of silt with its flow, around 1.8 billion tonnes per year. Carrying silt from the upper catchment of the Brahmaputra and its tributaries and depositing it in the main stream is a continuous process, mostly due to the vast deforestation and infrastructure development activities in the upper hilly catchment of the rivers," says Pradip Puzari, a project manager at M/S Patel Engineering Ltd. "It is impossible to make the river bed free from silt deposition by dredging, unless a suitable mechanism is applied to capture and dispose of the silt load flowing into the main stream from its tributaries. Otherwise, the dredged portion of the river bed will be filled up with fresh silt immediately. Dredging along a particular width of a channel along the Brahmaputra for navigational purposes will not support a permanent solution to the recurring floods and erosion of the Brahmaputra basin." So where is the need for such an economically-unviable project?

Puzari maintains that the state government should come up with a transparent detailed project report (DPR) taking into consideration the riparians and riverine biodiversity. No environment impact assessment A highly-active river in an area known for its biological and cultural diversity, the Brahmaputra is the lifeline for communities living along its banks and the fragile ecology of the eastern Himalayan region. The Brahmaputra Valley has been densely populated for centuries and most is still used for agriculture. Some blocks of natural habitat do remain, mainly as national parks and wildlife sanctuaries, including 12 identified as protected areas by the World Wildlife Fund. "The Brahmaputra and its adjoining floodplain lakes hold hundreds of species of macroinvertebrate and avian fauna, the most fascinating of which is the endangered Ganges dolphin," says Prof S P Biswas, head of the life sciences department at Dibrugarh University. "Siltation of the river bed and the widening of the river is a common scenario along stretches of the Brahmaputra."
The erratic nature of water discharge, high rates of erosion and siltation and habitat destruction have negative impacts on commercial fisheries and native species such as giant catfish, mahseer and turtles. Their numbers are dwindling sharply in the upper stretches, with the Ganges dolphin being the hardest hit." Numerous environmental concerns associated with dredging the Brahmaputra need to addressed, but the government seems to ignore those most critical. There are questions over how the construction of the expressways on both banks of the river is possible without disturbing the the river connections with other channels and water bodies. But one key question remains: how can the Assam government continue with such a massive project, without conducting the necessary environment impact assessment?

**Assam: Improving flood situation is a myth**

[link](http://blogs.timesofindia.indiatimes.com/social-strings/improving-flood-situation-is-a-myth/)

The popular media paints a picture that the flood situation in Assam is improving. An improved situation can only mean receding water levels, not necessarily a situation of reduced or alleviated impacts. It will be appropriate to use the word improved flood situation only when the vulnerabilities are lower, impacts are alleviated, and future risks are minimized. This year India has witnessed several disasters like landslides, landslips, riverine floods, urban floods across states of India. This reveals that our journey towards improving the disaster risk management systems since the enactment of Disaster Management Act 2005 has been far from complete. The reality is that certain factors like impacts of climate change, changes in our local built and natural environment due to human or societal interventions such as rapid urbanization have aggravated the problem of floods at a faster pace than the pace at which capacities have been built.

All of this stands in the way of achievement of meaningful disaster risk reduction. The impacts of disaster and vulnerabilities share a causal relationship in the given context of Assam floods. When vulnerabilities are high the impact of disasters are also high. This can be elaborated by analyzing the community resilience practices I talked about in my previous blog. We are blind to the invisible and gradual and incremental role of climate change. We only can identify the process and witness the consequences of climate change. And vulnerabilities expose the cracks in the social, economic, cultural and political systems. The task of DRM appears to be herculean having to deal with several societal issues. To improve a disaster affected scenario is a huge challenge. A bigger challenge is to deal with vulnerabilities and achieve their sustainable reduction.

Simultaneously, at the local, state and district level we need to keep a check on the factors leading to climate change, fully recognizing that in case of climate change success of our efforts depend on actions of other actors around the world. We can say that a flood situation is progressing towards normalcy only when it is accompanied by greater resilience. If this happens in Assam, it will be a huge achievement. At present, we are at a stage of only dealing with the
direct losses as they are immediate and visible. In the aftermath of the floods, we may review, revisit and rethink plans, policies, governance, administration, leadership with regard to disasters but we already know that what we have built so far is not sufficient as we lack continuous, careful and alert systemic approach to manage disaster risk. Reducing vulnerabilities and checking climate change processes form a long term game which demands rigorous decision making processes.

To harness the benefits of DRM we need investments to reduce the impacts of disasters. We need investments to reduce vulnerabilities on different region specific and identified indicators in required contexts. The SFDRR 2015- 2030 also stresses on this aspect. The investment requirement also faces severe challenges in terms of implementation. To improve a disaster situation we require significant investments to be made. Mumbai floods, Assam floods , Bihar floods, West Bengal floods shows the requirement of investments in disaster management systems like early warning system. Investments also have to be made in the maintenance and updation of technologies, creation of trained and skilled personnel’s in larger numbers, and other significant societal issues.

The receding water levels is one layer of problem but the bouncing back to normalcy requires us to deal with the several other layers of issues. We need a multidimensional approach to the research of disasters to deal with multidimensional issues. The long term effects are determined by long term players making the DRM complex. The context is never the same both spatially and temporally. In the start when we devise a strategy we consider the context and then suddenly the societal dynamics changes and the strategy and its impacts may fail. DRM is not about one solution. To solve one issue we need to undertake the changed patterns of issues. This makes the so called “improved” situation a myth. Disasters may lead to creation of more complex structures to be dealt with in the post disaster phase.

India: Heavy rains, floods continue to batter Assam, West Bengal, Bihar; several dead, millions displaced


Heavy rains, inundation, and floods continue to wreak havoc in India, with the death toll rising in Assam, Bihar and West Bengal this week. Over a crore people have been affected by the situation, with many shifted to relief camps and temporary shelters. Train and rail services of the Eastern Railway have also taken a hit, with many lines inundated or damaged in the rains. Assam The number of lives claimed by the floods in Assam has touched 123; 11 more deaths were reported on Wednesday. Nearly 33.45 lakh people in 24 districts of the state have been affected till now. Dhubri is the worst hit district, with 8.5 lakh people affected, followed by Morigaon (5.1 lakh). According to the Assam State Disaster Management Authority (ASDMA), 304 relief
camps have been set up so far. Assam Chief Minister Sarbananda Sonowal met Prime Minister Narendra Modi on Wednesday to appraise him of the situation. He requested the prime minister to set up an inter-ministerial team headed by a cabinet minister to visit the state and take stock of the situation.

The water level of the Brahmaputra has receded, and is below the danger mark in Dibrugarh, but is still flowing above danger levels in Jorhat, Biswanath, Kaziranga, Tezpur, Morigaon, Guwahati, Goalpara and Dhubri. In Kaziranga National Park, nearly 59 per cent of the area remains inundated, an improvement from the 90 per cent it was three days ago. Over 100 anti-poaching camps remain under water. Bihar The death toll in Bihar has risen to 72, with over 73 lakh people affected by incessant rains and inundation. Fears of floods have gripped the state, after at least 14 districts in the north were submerged, the latest being Gopalganj. Yesterday, a pregnant lady delivered a baby on a rescue boat with the help of NDRF personnel in Madhubani district. Chief Minister Nitish Kumar and his deputy Sushil Kumar Modi were to conduct an aerial survey of the Bettiah and Valmikinagar areas yesterday, but were forced to abandon their plans due to bad weather. They are currently monitoring the situation from Patna. So far, 2.74 lakh people have been relocated to higher ground, while 1.16 lakh people have been taken to relief camps.

West Bengal The toll in West Bengal hit 32 on Wednesday. Over 14 lakh people have been affected in six northern districts of the state, namely Malda, Alipurduar, Jalpaiguri, Cooch Behar and South and North Dinajpur. The state government has set up more than 600 relief camps, while NGOs have added at least 800 till now. NDRF and SDRF teams have been deployed in the region to help with rescue efforts. In a statement, West Bengal Chief Minister Mamata Banerjee said: “We have to rescue the people first and only after that we will start evaluating the magnitude of damage due to the floods. I have already spoken to the prime minister and home minister.” Meghalaya Around 1.2 lakh people have been displaced in the West Garo Hills district of Meghalaya due to floods caused by the rising of the Brahmaputra tributary, the Jingirgam River.

“A total of 136 villages in Selsella block along with 3-4 villages in Tikrikilla blocks have been affected by the recent flood. Over 1.2 lakh people have been affected and a total of 22,898 households were hit in the current flooding of the area,” district deputy commissioner Pravin Bakshi was quoted as saying by PTI. Relief camps have been set up and the SDRF has deployed teams for rescue operations. Bengaluru Meanwhile, the capital of Karnataka received the highest rainfall in a day in August in 127 years on Tuesday. Heavy rains lashed the city, which received 12.8 cm of rain in five hours from Monday night to Tuesday morning. The worst-hit parts of the city were Koramangala, HSR Layout, Ejipura, Jayanagar, JP Nagar, BTM Layout, Bannerghatta Road and parts of Indiranagar. While no deaths were reported, power lines were snapped, vehicles submerged, streets were flooded and trees were uprooted. Uttar Pradesh On Wednesday, after taking stock of the flood situation in Dhaurahra tehsil, Uttar Pradesh Chief Minister Yogi
Adityanath has directed district officials to ensure effective relief measures are taken for the people who have been affected. “Any laxity in this regard would be taken seriously,” he has told them. He had previously conducted an aerial survey of Gonda, Shrawasti, Balrampur and Bahraich districts.

**Assam: Wholesale market of dry fish at Jagiroad on the verge of closure**


The wholesale market of dry fish at Jagiroad, which caters to the need of this commodity for the entire North-east, might close down if the Government does not stop levying GST over it. The site of the market already looks deserted for want of import of the item from the coastal areas, as the traders there have stopped the manual processing of fresh fish due to imposition of this new tax. The whole market of dry fish does an average transaction of Rs 40 crore per annum providing avenues of livelihood to many a needy people of the area apart from generating a steady source of income for a number of entrepreneurs of the locality. The market has been contributing handsomely to the socio-economic uplift of the community by playing a catalytic role in generating direct and indirect avenues of livelihood to thousands of people. Supply of dried fish is made from the coastal areas of Gujarat, Andhra Pradesh, Tamil Nadu, West Bengal.

The trade on the item has suddenly come to a halt leading to an uncertain future for the traders and the suppliers. A spokesman of the local dried fish traders association pointed out that the dried fish is considered a perishable good. “There is also no tax prevalent upon the trading of fresh fish. Dried fish is not a processed food. It is made by drying manually the fresh fish in its state of rottenness by wage labourers in the coastal areas. Therefore, any tax on dried fish is deemed to be injudicious,” he said. For almost all the tribal people of the North-east and a chunk of other people of the region, dried fish is an indispensable part of their traditional food culture. The GST on the item may therefore deprive them of their most sought after food item. “Further, dried fish is one of the poor people’s food and imposition of GST upon it would increase its retail price causing anguish in the minds of these people,” pleaded another trader of the item. Jagiroad Dry Fish Marchants’ Association including the local people of the area too have urge the Government to consider withdrawal of any proposal for imposing of GST upon the commodity saying that closure of the dried fish market will retard the socio-economic development of the locality by aiding unemployment.

When contacted, Munin Borthakur, a senior citizen of the area, who was associated with the market since its inception, told this correspondent that the origin of the market can be traced back to the early sixties. At that time, in the swampy, low-lying areas surrounding Jagiroad in Morigaon district, a dry fish market appeared. The market started growing in stature and fish from different regions of the State were sold in the market. In 1965, dry fish from Gujarat, Maharashtra, Uttar Pradesh, Andhra Pradesh and Tamil Nadu were imported with the gradual
expansion of the market. Initially, the market catered to the local needs, but with its expansion, neighbouring States like Meghalaya, Manipur, Nagaland, Tripura and Arunachal Pradesh entered the market and Jagiroad became an important dry fish trading centre of the North-East Region. The market generally operated on Thursday, Friday and Saturday. There are now about 200 dry fish shops which are operated by mahaldars. Over 4000 people are directly or indirectly associated with this thriving trade. The price of fish varies according to size and quality.

Sea fish and fresh water fish like bamla, puthi, misa range from Rs 10 to Rs 110 per kilogram. The market situated very near the Jagiroad Railway Station is well served by rail and NH-37. The famous dry fish trade is controlled by the Jagiroad Dry Fish Merchants’ Association. The association has to pay a substantial amount of money as taxes. The association donates parts of its profits to schools, colleges, organisations and sports activities, claimed the president and the secretary of the Jagiroad Dry Fish Marchants’ Association Kamal Dey and Rajesh Deka respectively. The association in tandem with the Jagiroad Lion’s Club has also constructed footpaths and drains in the market area, they added.

Assam: Bid to trace history of fishing community through literature


A literature and storytelling festival will be held at Ananda Nagar, North Guwahati, from July 28 to 30. The festival is being initiated and facilitated by the Directorate of Museums, Assam, under the aegis of the Numaligarh Refinery Limited, Guwahati and Samata Sainik Dal, Barpeta. The inhabitants of the village are from the Malo and Burman community who are traditionally fishermen by occupation. Nearly 300 families reside in this village. This community migrated from Bengali-speaking regions of larger Kamrupa Bengal expanse and has a very unique culture, social history and custom. The project seeks to record an inclusive set of documents on cultural, intellectual and enigmatic layers of life, history and heritage of villagers of Ananda Nagar, according to the Directorate of Museums. Most importantly, the process and methods of recording will be initiated by the collective efforts of the community.

“In this project we will give particular emphasis on writing/sharing the old stories from our grandparents’ history, on the cultural roots, experiences being a community that bears various spiritual relationships with the river, experiences that are beyond the comprehension of other communities,” an official in the Directorate of Museums said. Another aspect of the programme is to investigate complex factors of history and the surrounding cultural influences and exchanges in the formation of identity of each other. In the festival, the villages will revisit their history through storytelling methods, where they will write about their history and memory, recreate literature reflecting their daily living and struggle of complex issues. It envisages to create a bridge of knowledge and empowerment of their life, economy, social and cultural ethos.
It will further invigorate intellectual and spiritual dimensions of the community life. Around 60 villagers will participate in the festival.

**Assam: Consumption of "salani" fish a health hazard**

[Link](http://www.assamtribune.com/scripts/detailsnew.asp?id=jul1917/state058)

Due to shortage of production of local varieties of fish and extinction of some of the local fish, the fish traders of Assam bring ‘salani’ fish from States like Andhra Pradesh, West Bengal, Bihar and Madhya Pradesh to meet the needs of the people here, purchasing tonnes of fish to the tune of Rs 150 crore annually. As a result, the Government of Assam is losing revenue which is said to be a matter of concern. Formerly, the State Government realised 0.5% on ‘salani’ fish but due to implementation of GST, the Government is unable to collect the taxes as before. Sources close to the traders informed that the Government of Madhya Pradesh has requested the State Government not to collect any tax on their consignment of fish. Sources further informed that the traders of the district of Dhubri mainly bring in rou, katla, chital, ari, pava, borali and Thailand magur in well-sealed thermocol cartons filled with ice so that the fish could be easily preserved for a pretty long time without rotting and formalin, a chemical is used to keep the fish fresh.

Some fishery scientists opine that regular consumption of ‘salani’ fish may cause serious health problems like blockade of blood circulation, heart problems, kidney failure and stomach troubles of various kinds. Huge stocks of ‘salani’ fish are regularly brought to be sold in fish markets of Dhubri, Gauripur, Bilasipara, Sapatgram, Golakganj, Agomani, Halakure, Boxirhat and even in small markets located in the remote places of the district. It is also interesting to note that the ‘salani’ fish brought from outside the State are usually reared in big ponds and the fish so reared are fed chemicals for rapid growth and to increase their weights. These chemicals are also harmful to health specially for the children. Enlightened people from all sections have urged the Government to clarify its stand on the issue as regular consumption of such fish usually is said to be the main cause of dehydration among the consumers in general and the children in particular.

**Assam: Why Assam faces floods every year**

[Link](http://www.livemint.com/Politics/JEGERRSFHOVCAm86PdItnL/Why-Assam-faces-floods-every-year.html)

Year after year, the biggest state in the northeastern region, Assam, is ravaged by floods. It displaces thousands and damages property worth billions—but lessons are rarely learnt. While natural topography and excessive rainfall are obvious causes, floods are also caused by human intervention—like encroachment of river banks and wetlands, lack of drainage, unplanned urban growth, hill cutting and deforestation. The Brahmaputra, a trans-boundary river and among the mightiest rivers in Asia, is braided and unstable in its entire reach in Assam except for a few places. As per the Brahmaputra board’s latest annual report, the main reasons behind the
instability of the river are high sedimentation and steep slopes. Additionally, the entire area falls in an earthquake-prone zone and experiences high rainfall. The Brahmaputra board is a central government body that is tasked to carry out surveys and investigations in the Brahmaputra Valley and to prepare a master plan for the control of floods, bank erosion and improvement of drainage.

“Topography of Assam and meteorological factor (high rainfall) are the obvious reason behind Assam floods every year. Also, Brahmaputra is the largest water carrying river of India and the second-largest silt carrying river in the world. But the way we deal with rivers is further accentuating the disaster faced by the region,” said Himanshu Thakkar, coordinator of South Asia Network on Dams, Rivers and People (SANDRP). SANDRP is a network of organizations and individuals working on issues related to the water sector with a focus on large dams. “The dams that are being built are further creating disasters. Not just that, the wetlands forests and local water bodies are being systematically destroyed which in turn is adding to the disaster vulnerability of the area,” Thakkar added. The region is also extremely vulnerable to breaches of embankments. “Floods happen due to a breach of embankments. More than 80% of these embankments have not been reinforced in several decades because there is a huge contractor-administration nexus that benefits monetarily from a flood situation,” said Kishalay Bhattacharjee, professor and commentator on the northeastern region.

According to data released by the Assam State Disaster Management Authority (ASDMA), 2017 has been the worst of the last four years in terms of floods. In 2014, due to floods, 1,846 villages were affected and about 1.6 million people were displaced. In 2015, the number of affected villages was 1,031 and about 1.5 million people were displaced. The numbers saw a huge jump in 2016 with 2,893 villages affected and about 1.7 million people being displaced. This year, about 2,450 villages have been already affected by floods and more than 1.7 million people across the districts of Lakhimpur, Biswanath, Karimganj, Kokrajhar, among others, displaced. The monsoon season is still ongoing. ASDMA has set up 123 relief camps and 259 relief distribution centres across the state but the number of displaced is increasing. The camps are housing close to 29,000 refugees. The current death toll across 58 districts in Arunachal Pradesh, Assam and Manipur is 80.

Thakkar said authorities also need to improve the flood forecasting system and coordinate with local administrations. “The central water commission (CWC) puts out flood forecasts but that’s not good enough as local administration is not able to use it. CWC also needs to take it into account rainfall data and not just upstream water flow. All such measures along with addressing man made causes can help reduce the level disaster in the region,” he added. Floods also are a cause of worry for the administration as they spread disease. “Japanese Encephalitis has already spread here. We fear that other water-borne diseases such as jaundice and cholera will also affect the refugee camps because there are too many displaced people and the situation is only becoming worse with each passing day,” said a senior union home ministry official, requesting
Anonymity. A team from Niti Aayog and the union home ministry’s National Disaster Response Force (NDRF), led by union minister of state for home affairs Kiren Rijiju, carried out a ground assessment of the Assam floods earlier this week. The government has also drafted in experts from Isro for carrying out an assessment of the damage in the northeast by satellite.

Assam: Kids face flood woes in Assam - Toll mounts, fury grows as relief fails to reach the homeless

https://www.telegraphindia.com/1170718/jsp/frontpage/story_162518.jsp

Seven-year-old Moushumi is fast asleep. Her father, Jula Ali, one of the nearly 100 families taking shelter here since their houses were flooded two weeks ago, sits beside her under a tarpaulin sheet along the Guwahati-Jagiroad road near Pobitora wildlife sanctuary. "She is down with fever and did not sleep a wink last night. I gave her two tablets which I bought from a pharmacy today. After that the temperature has dropped," Ali told this correspondent as he anxiously waited for a government doctor to visit them. "We are somehow managing our food. Many children here have fallen ill. Forget about us, the government should at least look after our children," he added. No baby food from the state government has reached the flood-affected people here yet. Ali's three sons, aged between nine and 14, were playing by continuously jumping into the floodwaters from a culvert on the other side of the road while two of his daughters waited behind fishing nets for their next catch.

"As children bathe in the floodwaters and go fishing, many are falling ill, suffering mostly from fever and earache. Moreover, they run the risk of being run over by vehicles as they keep crossing the road. My daughter Asma got injured yesterday after being hit by a motorcycle," Khairun Nessa, another flood-affected woman, said pointing to her six-year-old daughter. Drowning and trafficking also pose a serious risk to children affected by the deluge. Nearly 500 children have taken refuge with their parents by the wayside. They are primarily residents of Kusiani, Bordia, Murkata Number 1 and Murkata Number 2 villages in Morigaon district, about 40km east of Guwahati. The government, however, says people in the district have not left their homes because of floods.

The Assam State Disaster Management Authority (ASDMA), which issues a flood bulletin every evening, does not have any break-up of the children and women affected by flood, which, like every year, has wreaked havoc in the state. "Of the 60 flood-related deaths in the state so far, 23 are below 14 years. We are collecting data on the affected children," the project officer of ASDMA in Guwahati, Rajib Prakash Baruah, said. The current floods have affected nearly 4,000 villages, covering more than 25 lakh people in 29 of the state's 33 districts. The government data issued on Saturday said more than 1.21 lakh people had taken shelter in 320 relief camps opened by the government. Save the Children, an international NGO working in Assam since 2002, said more than six lakh children have been affected in this year's floods. "During a natural disaster
like flood, children are more vulnerable to abuse and exploitation as their parents remain busy either in managing a shelter or food. Many children drown in floodwaters. Nutritional needs of the newborn, lactating mothers and pregnant women are affected due to lack of proper supply of baby food in relief camps.

Schools get damaged or eroded every year and sometimes remain shut for months, affecting children's education in the long run," Chitta Priyo Sadhu, general manager of Save the Children, told The Telegraph. Sadhu is the team leader of the NGO distributing relief items to flood-affected children. "The government agencies and civil society should work out child-specific relief mechanisms so that children are protected, provided proper food and the impact on their education is minimised," Sadhu said. "In 2003, we had launched a project in which child-friendly spaces are facilitated in some relief camps during floods every year. Under it, children are provided both play and study materials. We engage two facilitators in each centre. In 2014, we trained district disaster management officials in 23 districts on how to ensure child protection. Such child-friendly space can be facilitated by the government in every flood-prone district," Deba Prasad Sarma, project co-ordinator of the NGO in Assam, said. Chiranjeeb Kakoty, director of the Northeast Society for Promotion of Youth and Masses, another NGO, had written to ASDMA on Saturday, seeking details on the number of flood-affected children, pregnant women and the elderly for specific relief measures.

India: Data from India helps Bangladesh prepare for floods, but Assam reels

As the monsoon begins, some parts of Bangladesh are already flooded, and the Brahmaputra and Ganga rivers are expected to burst their banks sooner rather than later. But the people are now more aware of potential disasters thanks to improved flood forecasting and monitoring systems. 'We made a forecast for the ongoing flood in the Surma-Kushiyara basin prior to June 30, and now we are forecasting that the water level at many points of the Brahmaputra and Ganga might cross the danger level in the next three days,' said Sazzad Hossain, Executive Engineer at the Bangladesh Flood Forecasting and Warning Centre (FFWC). The projections made by the centre are based on data about water flow upstream in the Brahmaputra, Ganga, Teesta, Feni and Barak -- all transboundary rivers flowing in from India. It is provided to the Bangladesh Meteorological Department by their Indian and Chinese counterparts and gives the authorities more time to prepare and even evacuate the vulnerable residents if necessary.

Under bilateral agreements between the countries, India and China provide information twice a day during the monsoon to help Bangladesh update its flood forecasting systems. India provides data from two points on the Ganga, five on the Brahmaputra, and one each on the Teesta, Feni and Barak rivers, while China provides river flow information from three points on the
Brahmaputra river in Tibet. People living in the Ganga-Brahmaputra-Meghna basin are used to floods during the monsoon season. Just last year, Bangladesh experienced a severe flood due to heavy monsoon rains in the Brahmaputra basin and in 2015, 200,000 hectares of Aman paddy and 50,000 hectares of vegetable fields were inundated with floodwater, according to the Department of Agricultural Extension (DAE). In early June this year, heavy rainfall in Bangladesh and in Assam and Meghalaya caused floods in some parts of the country. Northeastern Bangladesh was badly hit, with the Surma river in Sylhet district flowing 72 cm and 78 cm above the danger level at two points.

According to the Bangladesh Water Development Board, the ongoing flood has affected several hundred people in the districts of Sylhet, Sunamganj, Habiganj and Moulvibazar, where 280 schools have been closed and around 300,000 people have been cut off. But now that the country can learn about potential hazards a few days in advance, preparations can be made earlier. The DAE has made preparations to provide fresh Aman paddy seeds to farmers, in case crops are damaged by the floods. 'We have enough preparation to supply farmers Aman paddy seeds after the flood so that they can continue their cultivation,' Chaitanya Kumar Das, Deputy Director of the DAE, told thethirdpole.net. 'Considering the FFWC's forecast, we have made preparations, including relief and rehabilitation mechanisms, to tackle the natural disaster,' Abu Saleh Mohammad Ferdous Khan, Deputy Commissioner of Kurigram district administration, told thethirdpole.net.

'We get enough time to evacuate people living in low-lying areas near the rivers.' Meanwhile, in Assam, over 1.25 million people have been affected by the floods, and at least 33 already reported killed. Major highways have been disrupted, and the famed Kaziranga National Park, home of the one-horned rhinoceros, is mostly under water, with animals seeking higher ground. It is unclear why, if Bangladesh is better prepared for floods at least partially due to information shared by India, Indian states do not seem to be. In the past, the states of West Bengal and Assam have blamed lack of information from upstream riparians such as Bhutan and China. The floods are a regular catastrophe, occurring year on year with comparable amounts of people affected. And while it is argued that India and Bangladesh must work together to deal with transboundary floods, the challenges for India seem to be as much within than outside its borders.

Assam: In the world’s biggest river island lies India’s first carbon-neutral district

https://yourstory.com/2017/06/assam-majuli-carbon-neutral/

It’s the world’s biggest river island and the first such in India to be declared a district. Now plans are afoot to declare it the country’s first carbon-neutral district by 2020. It is by no means a mean feat, but ambitious projects, with the help of locals, NGOs, and corporate houses, are getting underway to achieve this. The roadmap for the project has been developed by IORA Ecological Solutions, an environmental finance, policy, advisory, and project development group.
Mitigation through forestry and biodiversity conservation will be the starting points in this carbon-neutral agenda, followed by other interventions over the next three years. Pallav Jha, the District Commissioner of Majuli in an interview with IANS said, To begin with, we are now collecting data for preparing a carbon audit. Information on electricity consumption, emission levels by different industries, and emissions by agricultural practices like burning of crops.

Also, what is the total forested area. “At the moment, it’s the rural emissions, be they agriculture-based practices or burning of fuel, that we have to check. But we have to keep in mind the increase in vehicular pollution in the near future—when Majuli gets connected with the mainland by a national highway, as declared by the central government,” Jha told IANS. After years of poor connectivity, the central government promised a bridge connecting Majuli—Assam Chief Minister Sarbananda Sonowal’s constituency—to the mainland and is also thinking about an access-control highway along the Brahmaputra to ease traffic flow. With better connectivity, this ancient seat of Vaishnavite culture, which is already an attraction for tourists, more people and traffic are expected to pour into Majuli. This is good news for tourism and will create more job opportunities for the locals, but its impact on the environment is also being carefully considered.

The connectivity to Majuli should be completed in the next three-four years. Keeping in mind the increase in vehicular pollution and increase in carbon footprint that it will be bring along, we may impose a Green Cess on tourism, the District Commissioner said. But that is for the future. At the moment, efforts are on to make locals aware of the implications of climate change and nudge them towards adopting changes in their lives. Organic farming, for one, is being encouraged. Development of fisheries is also being encouraged. Launched by the Assam government as Sustainable Action for Climate-Resilient Development in Majuli (SACReD), this project is part of the French Development Agency-assisted Assam Project on Forest and Biodiversity Conservation to combat climate change and reduce greenhouse gas emissions. As part of efforts to check fuel emissions, the District Commissioner said that LPG connections will be given to those who lack these.

Over and above that, the District Commissioner said, public participation will be sought to raise ‘organic pockets’ for wood for fuel so that indiscriminate deforestation can be checked. Plantation drives, in any case, are already underway across the riverine island. In the absence of electricity, most people in Majuli—much like everywhere else in Assam or the rest of India—resort to the use of kerosene lamps. To address this, a 5-10 MW project by the National Hydroelectric Power Corporation (NHPC) will help electrify villages that are now bereft of power. The contribution of solar energy to light up homes in an eco-friendly way has also been taken into account. The government plans to extend this programme to other districts once Majuli succeeds in its aim.

Assam: NEC-sponsored mega fish project begins in Nalbari dist
With the financial assistance of the North East Council (NEC) under the Ministry of DoNER, the Assam Agriculture University, Jorhat is implementing a mega fish project in Nalbari district involving the poor fish farmers. The mega project to improve the livelihood of poor and ultra poor farmers through fishery-centric growth and employment intervention in Nalbari district is being implemented by Pancharatna Multipurpose Co-operative Society Ltd (PMCS), a reputed development-based society of the district. In this connection, an awareness cum input distribution programme was held at no. 2 Sagarkuchi village on May 20. The inputs, including limes, fingerlings, feeds, manure, were distributed among 200 fish farmers of Sagarkuchi, Hablakha, Nankarbhoira and Ghohkuchi villages. MLA of Nalbari LAC Ashok Sarma formally distributed the inputs among the farmers.

In his speech, he appreciated the approach taken by PMCS and encouraged the fish farmers to work efficiently so that the economic condition of their families in particular and the district in general, improves substantially. The Program Co-coordinator of Krishi Vigyan Kendra (KVK), Nalbari, Mridul Deka assured full technical support and training to the fish farmers so that they can increase their productivity. Mahendra Baishya, Chairman, Pancharatna Multipurpose Co-operative Society Ltd told the farmers that the society will work to build the co-operative model among the selected farmers so that their livelihood gets better. The meeting was presided over by well-known social worker of the area Kanshadhar Das.

Assam: Raid on violators of fishing ban

A team of the State fisheries department led by its Director Swapan Kumar Das, conducted a raid on violators of fishing restrictions during the breeding season in areas near the Digaru and Kolong rivers on the city outskirts on Wednesday. Ten various types of fishing nets of banned specifications, besides banned fish-catching appliances were seized during the raid. The restriction bans catching of brood fish (fish carrying eggs and sperm) during the breeding season. An awareness camp was also held at the Gowardhan market for disseminating information on the do’s and don’ts during the restrictions imposed on fishing and creating mass awareness. Fishery Officer Dhrubajyoti Sarma, who held the interactive session with the villagers, said that the people’s response to the department’s appeal was encouraging.

“More and more people are becoming aware of the need to restrict fishing in various natural water-bodies like rivers, beels, lakes and streams during the breeding season. We explained the pros and cons of the Assam Fisheries Rules-1953 to the people, especially those whose livelihood is linked to fishing and related practices,” Sarma told The Assam Tribune. The members of the fishery department team included besides Sarma, Anushree Das, Ajgar Hussain and Poziruddin Ahmed. Violations of the prohibitory orders on fishing restriction during the
breeding season have been common across the State. Conservationists are worried that unchecked catching of fish in their breeding season stands to jeopardise the fish progeny. The rule also bans catching of brood fish (fish carrying eggs and sperm) species like rohu, bahu, mrigal, mali, chital, kharia, puthi, gharia, kurhi, etc.

**Assam: Regional consultation on open water fisheries development**

http://www.assamtribune.com/scripts/detailsnew.asp?id=may0817/city056

The ICAR-Central Inland Fisheries Research Institute (ICAR-CIFRI) of Barrackpore in West Bengal organised a regional consultation on ‘Open Water Fisheries Development in the North East Region’ in the city recently. A total of 40 delegates, including scientists and researchers from ICAR-CIFRI, participated in the consultation. Dr BK Bhattacharjya, Head of ICAR-CIFRI Regional Centre, Guwahati, welcomed the participants and sought inputs from the delegates on the roadmap for open water fisheries development in the North East prepared by the institute, before publishing it. In his inaugural address, Dr BK Das, Director of ICAR-CIFRI, emphasised the need for developing open water fisheries in the region and assured of providing research support to the State Fisheries Department. He explained the background and purpose of the regional consultation and stressed the need to prepare an effective roadmap for developing open water fisheries of the region through consultation among the stakeholders. In his inaugural address, Parimal Suklabaidya, Minister of Fisheries stressed the need for making the region self-sufficient in fish production by utilising all available fishery resources.

He urged all the fisheries departments of the region to work with the common goal of achieving self-sufficiency in fish production through concerted efforts. He also highlighted the recent initiatives of the Government of Assam to bring about a Blue Revolution in the State through the ‘Ponds For All – Fish For All’ scheme launched by the Government. The technical session was chaired by Dr BK Das and co-chaired by Dr PK Pandey. Dr BK Bhattacharjya and other scientists from the Centre proposed State-specific roadmaps for open water fisheries development in the region. The updated data showed that the total fish production in the North East stood at 4,23,749 metric tonne (mt) during 2015-16 – (Assam 2,97,000 mt, Tripura 68,331 mt, Manipur 32,000 mt, Nagaland 8,220 mt, Mizoram 6,828 mt, Meghalaya 6,560 mt, Arunachal Pradesh 4,410 mt and Sikkim 400 mt). This was four per cent of the country’s total fish production and met 86 per cent fish requirement of the region (present requirement estimated at 4,82,384 mt). The presentation showed that the region has tremendous potential for enhancement of fish production from inland open waters. The potential of fish production in open water fisheries of the North East has been estimated at 1,39,846 tonnes (14,142 tonnes from rivers, 8,358 from reservoirs, 1,17,346 from wetlands, lakes and swamps).

**Assam: Farmers give shape to Stateâ€™s first ornamental fish village**

http://www.assamtribune.com/scripts/detailsnew.asp?id=apr2417/at055
Every week, ornamental fish worth Rs 20 lakh is imported to Assam, mostly from Kolkata, the production of which in Assam is negligible despite the fact that some of the exotic species produced in the State are of better quality. And now a nondescript village in Nagaon’s Dhing is witnessing the dawn of a ‘rainbow revolution’ in Assam, as a group of farmers gives shape to the State’s first ‘ornamental fish village’. From a humble beginning way back in 2012, as many as 52 farmers of Aathgaon village, about 23 km from Nagaon town, are now involved in breeding ornamental fish. Backed by technical support from institutions like Fishery College (Raha), Dhing College, KVK (Nagaon), State’s fisheries department and National Fisheries Development Board (NFDB), the farmers are now producing around 3.5 lakh ornamental fishes of eighteen varieties and supplying them in some six districts of the State. Leader of the farmer’s group, 39-year-old Partha Rathi Hazarika is a science graduate (industrial fish and fisheries) from Nowgong College.

“Around 20 years back, I had visited Kerala and had worked in some ornamental fish farms there and even in Kolkata. I was attracted to the field. I came back and started an aquarium service centre at Nagaon. This was followed by some exposure visits to places like Hyderabad under the aegis of NFDB, NABARD and Marine Products Export Development Authority (MPEDA). Soon I began breeding some ornamental fish species in twelve small tanks on the premises of my residence in Nagaon town,” Hazarika told The Assam Tribune. By then Hazarika had bigger plans. In 2012, he initiated an ornamental fish farm at a plot of three-katha land at Aathgaon village. Five years on, the farm now has an aquarium house (400 sq ft), 40 concrete tanks in 2.5 katha land and another 50 terracotta tanks in the periphery. He roped in the curious villagers and one by one trained and involved 52 of them in the trade.

“Mostly they are women. They have built small ponds in their houses and are breeding the fish using traditional pisciculture techniques. Of the eighteen species we have, four are indigenous. The prices of the fish are in the range Rs 10 to Rs 300 per fish,” he said, adding that though their production capacity is five lakh, they are yet to reach the target. The farmers are also making the fish feed themselves. According to fishery officials here, locally produced ornamental fish is priced about 25 per cent less than those from Kolkata. Besides, there is no transportation costs involved. The quality of some species bred here are better than those of Kolkata.

Assam: Capacity building programme on scientific fish farming held


A six-day capacity building programme on scientific fish farming was held at Lahowal College recently. Organized jointly by Jeeva Suraksha, a Sibsagar based NGO working on conservation, education and employment generation in Northeast India, and ICAR-Central Institute of
Fisheries Education, Mumbai, the programme was sponsored by Mising Autonomous Council, Gogamukh, Dhemaji for the Mising community people of Dibrugarh and Sivasagar districts. With a view to exploring opportunities and providing a platform for technical support to the rural folk in order to become self-sufficient in fish production and to explore employment opportunities, the programme envisaged various subjects that covered composite fish culture, integrated farming systems, fish seed production and raising as well, ornamental fish culture and promotion of aquarium industry along with hands-on training on construction of aquarium and cage for fish farming in beel and river systems, particularly for flood-affected areas at NR hatchery, Lahowal.

A total of 46 participants were trained in two batches. The inaugural function of the programme was attended by Lohit Deka, Head Programme, All India Radio, Dibrugarh as chief guest along with Jagannath Bania, Ranjan Dutta of State Fisheries Department- Dibrugarh, Niranjan Pike, successful entrepreneur of the State. The function was chaired by JP Dutta, Principal of Lahowal College. Prof SP Biswas, Department of Life Sciences, Dibrugarh University, Ranjan Dutta, Rafique Saikia, Fisheries Extension worker, Department of Fishery, Niranjan Pike, entrepreneur, Dr Binku Dutta, Lekhanta Borah, Nipen Nayak, Dr Ranjita Bania and Lohit Deka acted as resource persons for the programme. A book on scientific fish farming written by the Course Director Dr Ranjita Bania, titled Assamot Meen Palon was also inaugurated in the programme by Jagannath Bania, social worker and advisor of the society. The Principal of the college, JP Dutta chaired the inaugural programme.

Assam: Call to tap resources to enhance State™s fish output


A daylong conference on the Fisheries Mission under Chief Minister’s Samagra Gramya Unnayan Yojana was held yesterday at the Assam Administrative Staff College, Khanapara. In his welcome address Principal Secretary to the Government of Assam MC Jauhari urged the officials to identify the potential resources for pisciculture activities for enhancing fish production in the State. He also stressed utilisation of the untapped resources for fish production which may help in employment generation in rural areas. Attending as resource persons, Dr Dilip Kumar, former Director of the Central Institute of Fisheries Education, Mumbai; Dr KK Tamuli, Dean of College of Fisheries, Raha; Dr BK Bhattacharjya, Principal Scientist and Head, CIFRI, Guwahati Centre; Padma Hazarika, Nodal Officer (Fishery), BTC and Tiwa Autonomous Council and Dr Ramen Barman, Nodal Officer (Fishery), Blue Revolution, highlighted the various issues relevant to development of the fisheries sector in the State.

Fishery Minister Parimal Suklabaidya attended the conference as the chief guest. In the interactive session the participants interacted with the resource persons and all were of the opinion that the Fisheries Mission under the Chief Minister’s Samagra Gramya Unnayan Yojana
would help in rural employment generation and make the State self-sufficient in fish production within a short span of time. Altogether two hundred fishery officials from different parts of the State attended the programme. Director of Fisheries SK Das explained the objectives of the conference, while Dr DJ Sharma, Fishery Officer, Department of Fisheries anchored the programme, stated a press release.

**Assam: Training on ornamental fish farming at Tinsukia**


The ICAR–Central Institute of freshwater Aquaculture, Bhubaneswar in collaboration with Jeeva Suraksha, a reputed NGO of Sivasagar, Assam working in the field of conservation, education and employment generation in North East India organised a two–day training programme on ornamental fish farming at Department of Life Sciences, Dibrugarh university on March16 and17. The objective of the programme is to make people aware about the lucrative business of ornamental fish farming, its trade and how the rural folk of Assam get to know about the technology of ornamental fish breeding and culture. Since Assam is the goldmine of indigenous ornamental fishes, many indigenous varieties are being exported outside the country through the exporters from all over the country, but the local people and even the suppliers do not know the price in national and international market.

Consequently, some of indigenous ornamental fishes are under the threat of extinction due to overexploitation and hence, awareness and motivation of the stakeholders is very much essential for conservation of these species. During the Inaugural function Krishnashree Das Kalita, District Fisheries Development Officer, Dibrugarh explained about different government schemes and ask support for implementation of Assam Fisheries Act in the district. Prof S.P Biswas in his inaugural talk motivated the entrepreneurs about the conservation of indigenous ornamental fish species of Assam. Dr Ranjita Bania, Fisheries biologist and Coordinator of the programme addressed the gathering and said that Assam is far behind in ornamental fish farming compared to the other states and it is almost non–existent in upper Assam. She thanked Dr J Sundaray, Director, CIFA– ICAR for the training programme at Dibrugarh and requested him for future such collaboration in the field of aquaculture in NE India.

Dr Saroj Kumar Swain, Principal Scientist ICAR–CIFA and Course Director delivered lectures on breeding and culture of indigenous and exotic ornamental fishes and also showed CIFA prepared documentary films on ornamental fish farming across the country. Likhanta Borah, an entrepreneur from Moran also shared his experience. On the 2nd day, Kripan Sarkar, a renowned entrepreneur of Siliguri shared his experience on live food culture and on farm production of aquarium fish. Dr. S.P Biswas, Professor, Dept of Life Sciences shared his experience on acclimatization and prophylactic measures needed in aquarium fish breeding. The training
programme was attended by 38 participants from Jorhat, Golaghat, Dhemaji, Nagaon, Sivasagar, Dibrugarh and Tinsukia district along with some research scholars and faculty members of Dibrugarh University. Dr Amal Bawri, Secretary, Jeeva–Suraksha and Bhadra Kumar Dutta, executive member of the NGO conducted the programme.

**Assam: Fisheries dept to look after natural water bodies**


In a landmark move, the State government has decided to hand over the administrative control of all natural water bodies – beels, oxbow lakes, low lying areas, swamps, derelict water bodies, dead river courses, river tributaries and reservoirs, which were so far being settled by the Revenue & Disaster Management Department – to the Department of Fisheries. The move has been initiated for proper scientific conservation and management of the natural resources in a productive manner for sustainable development and economic development of the people in the vicinity of such natural water bodies. The State fishery department had only 141 government farms as its asset and they were primarily engaged in fish seed production and distribution. The Assam Fisheries Development Corporation has 185 beels, comprising around 10,000 hectares of land. There are around one lakh hectares of beels (430 registered and 767 unregistered) in Assam under the State revenue department.

Derelict water bodies comprise around 1,16,444 hectares of land. “Such natural bodies shall be administered by the fishery department through its directorate/district/subdivisional level officers,” a government notification stated. “It is a bold initiative of the government. It will have a major positive impact in fish production. We will have to adopt a mission mode approach. It will also generate thousands of rural livelihood opportunities,” Fisheries Director SK Das said. Nodal officer (Blue Revolution) Dr Ramen Barman said the present average fish production of these beels has been 300 kg per hectare per year and 250 kg in case of derelict water bodies. “Using a better management system, we can enhance the production up to 1,500 kg in case of beels and 3,000 kg in case of derelict water bodies,” he said. The State’s current fish production is 2.94 lakh tonnes against the demand of 3.36 lakh tonnes. The fisheries department is in the process of formulating a modality for managing these water bodies once transferred to it from the revenue department.

The department is planning to engage a technical officer with each MLA to help manage the water bodies in their respective constituencies. According to the notification, in case any such natural water body has been already leased out by the DC/SDO, the right of fishing in the water body will be retained by the lessee till the expiry of the lease period, unless he or she obstructs the developmental steps taken by the fishery department.

**Assam: Bid to boost fish output in State**
Around 1,400 new ponds will be built in the State within April this year covering around 210 hectares of land which are expected to raise the fish production in the State by around 700 tonnes by next Magh Bihu. The project is part of the flagship ‘Blue Revolution’, under which steps have also been taken to set up 12 fish feed mills of 500 quintal capacity (per day), 10 fish seed hatchery and 75 houses for fishermen, including community halls. “It is an integrated approach to boost fish production and attain self sufficiency. We hope to put in place the infrastructure targeted for this year within April. Already 60-70 per cent of the ponds have been completed,” nodal officer of State’s Blue Revolution Dr Ramen Barman told The Assam Tribune. The project is funded by the Agriculture Ministry’s Department of Animal Husbandry Dairying & Fisheries (DADF). An amount of Rs 16.41 crore will be spent under the various components of this project within this financial year.

The fisheries department has also decided to enforce penal provisions against those beneficiaries and officers who fail to meet the target or are involved in misuse of funds. The average size of the ponds in the private compounds is one bigha, while the community tanks will be of one hectare each. “We have earmarked Rs 7 lakh for each hectare of pond. An additional Rs 1.5 lakh will be spent on fish feed and seed per hectare of pond. By next Magh Bihu we hope to get a yield of 3,000-3,500 kg per hectare of new pond,” Dr Barman added. The State’s current production is 2.94 lakh tonnes against the demand of 3.36 lakh tones, and the average growth rate in fish production in the last 10 years has been 4.2 per cent. “We have now set a target of 6 per cent growth rate from this year. If things go as planned, we hope to raise the production to 3.71 lakh tonnes by 2022 against the projected demand of 3.60 lakh tonnes in that year,” the nodal officer said. He said the marketing system is also being strengthened by construction of new cold storages and nine new hygienic markets. “The projects are part of a five-year plan. We expect good results by the end of five years,” he added.

Assam: Political intervention stalls Centreâ€™s Blue Revolution in Lakhimpur district

Blue Revolution, a centrally launched scheme of Integrated Development and Management of Fisheries, the Neel Kranti Mission – through potential utilisation of water resources for fisheries development in a sustainable manner – is facing trouble in Lakhimpur district following alleged political interventions. According to the guidelines of Central Sector Scheme on Blue Revolution: Integrated Development and Management of Fisheries, Government of India, Ministry of Agriculture and Farmers Welfare, Department of Animal Husbandry, Dairying and Fisheries of June, 2016, the scheme is to be implemented by State Governments/Union Territories as nodal departments with 80 per cent funding from the Centre for Northeastern and hill States.
While the State Fishery Department is the nodal agency to implement the Neel Kranti Mission in Assam, the district fishery development offices are supposed to select beneficiaries for the scheme. Named as Ghore Ghore Pukuri (fishery in every household) by the State Fishery Department, beneficiary lists are to be prepared by district fishery development offices for the Rs 70,000 per scheme, where Rs 56,000 will be in the form of subsidy and the remaining Rs 14,000 will be bore by the beneficiary. Any interested person with two bighas of land for a fishery can apply for the Neel Kranti Mission scheme in Assam. In Lakhimpur, the scheme is to be implemented in a way in which 13 beneficiaries will be selected from each of the four LAC areas of the district. But the alleged role of all the four MLAs from the district in selecting the beneficiaries for the Neel Kranti Mission in Lakhimpur district is creating problems for the fisheries development office.

As the common fishery entrepreneurs are enquiring about the criteria of beneficiaries for the scheme at the district fishery development office in North Lakhimpur, the selection of the beneficiaries by the four MLAs on political grounds are jeopardizing the ambition Central Government’s plan for tapping the full potential of the inland and marine culture fisheries of the country by developing it as a professional modern world class industry, ensuring doubling of income of fishers and fish farmers of the country and ensuring sustainability of, bio-security and address environmental concerns for enabling sustainability of the fishing industry – a sunrise sector of the country. The Centre has already sanctioned Rs 16.41 crore for Assam to usher in a Blue Revolution under this Neel Kranti Mission.

**Assam: Chamaria fishery body adjudged first**


The Chamaria Fishery Farmers Producers Organisation, Kamrup, secured the first position in the field of Farmers Producers Organisation by NABARD, Assam Regional Office. The organisation was promoted by an NGO North-east Welfare Development Society through the financial assistance of NABARD. The organisation got technical guidance of Dr Sanjay Sarma, Senior Executive (Technical), National Fisheries Development Board. It needs mention here that fisheries and aquaculture sectors are gaining importance at present not only because of their significance in food production sector, but also because of their value in export earnings and economic development of the country. At the same time, for the State of Assam, it is also instrumental in providing sources of livelihood for a large section of economically backward people, particularly in the rural areas.

However, there are some major constraints experienced in expanding aquaculture industry in the State including non-availability of quality fish seeds at the right time and un-organised marketing system, which fetches comparatively low price for the producers, a statement said. To address
such issues in the selected cluster areas, where large-scale fish farming is going on, NABARD has taken the initiative to form Fishery Farmers Producers Organisation through NGOs.

Assam: Fresh mapping of all Kaliabor wetlands


With an aim to protect a number of wetlands under Kaliabor subdivision, the subdivisonal administration had decided to go for fresh mapping of all the wetlands of Kaliabor subdivision. This was stated by Pankaj Chakravorty, SDO, (Civil), on Thursday at Kaliabor while observing the World Wetland Day. Chakravorty also informed this correspondent that wetlands of Kaliabor, part of which comes under Kaziranga National Park happens to be an important breeding ground for fishes. If proper conservation of these wetlands were not done in a scientific manner, then it will have an adverse affect on fish population throughout Assam. “Mapping of the wetlands are very important because this will help in creating demarcation and further checking encroachment,” said Kaliabor Civil SDO, Chakravorty, adding that mapping will be done both through satellite, having present status and at a field level in terms of social-economic condition.

If there is any encroachment at the wetlands, then those would be evicted very soon and if necessary Sec 144 would be imposed by the administration if people fail to obey rule of the land and continue fishing in the wetlands, said Chakravorty. Dr Pranab Bora from WWF India said that for the first time the World Wetland Day has been celebrated at Kaliabor and responses from the stakeholders was very encouraging. He said that conservation of wetlands is important given its necessity for the survival of avi fauna and other aquatic lives. He also added that Nagaon district has the second highest number of wetlands in the State. He explained the importance of two wetlands namely Joysagar Doloni and Muamari beel for a balance ecosystem. The meeting was attended by people from different walks of life. Resource person Parthajyoti Das outlined the importance of wetlands in context of wildlife.

Assam: Stork deaths may not be due to water toxicity: Pramil


Minister for Environment and Forest Pramila Rani Brahma today said that the recent death of greater adjutant storks at the Deepor Beel is most likely due to consumption of poisonous water or fish at some other location and not due to food poisoning or toxicity of the waters at the wildlife sanctuary. Replying to a Zero Hour notice moved by AGP MLA Ramendra Narayan Kalita in the Legislative Assembly, Brahma said that 26 greater adjutant storks and two kites died at the Deepor Beel during the recent days. Carcasses of six greater adjutant storks have been sent for forensic tests. The minister said that no other birds, fish species or other animals have
been affected and that shows that the dead storks might have consumed poisoned substances at some other location.

Brahma said that the construction of a railway line though the wildlife sanctuary and also the presence of high power electricity lines have negative consequences for the place, which is famous for its migratory birds. She said the Government has made a plan for the beautification of the Beel for which some land acquisition will have to be carried out. She added that action has been taken against fishermen who have flouted prohibitory orders to carry out fishing in the Beel, but added that the Government is also concerned about the welfare of the local fishing community and is looking at ways to mitigate their concerns by allowing them to carry out fishing once or twice every week. Earlier, raising the issue, Kalita cited media reports to state that the Deepor Beel has been heavily polluted due to the presence of a dumping ground in its vicinity and the carriage of pollutants from the Guwahati Refinery in the Bharalu river to the wildlife sanctuary.

He said the recent death of greater adjutant storks is a cause of concern as they are an endangered species and added that despite repeated pleas, no action has been taken by the State Government and the Guwahati Metropolitan Development Authority (GMDA) to take remedial measures for conservation of the place, protection of its species and curbing pollution. He also added that local fishermen have been harassed in the name of conservation efforts and enforcement of laws and suggested that alternative arrangements should be made for them so that their livelihood is not affected. “Can there be a wildlife sanctuary in such a place?” Kalita said, citing the railway line passing through the place and the high-powered electric lines. He also cited data from the Central Pollution Control Board to stress that high content of arsenic and mercury has been found in the waters of the Deepor Beel.

**Assam: Cashless transactions in Assam hamlet for over five centuries**


Cashless transactions may be the latest buzzword in the country’s economic arena, but in a small hamlet about 32 km from Guwahati, members of Assam’s Tiwa tribe meet every year to carry out an unique trade fair where the dealings are totally cashless. The system of barter trade has been kept alive for more than five centuries by the Tiwas, a tribe of Central Assam and neighbouring Meghalaya, who hold the three-day annual fair in the third week of January in Assam’s Morigaon district. Popularly known as the ‘Junbeel’ Mela, meaning moon (Jun) and wetland (beel), as the fair is held beside a large natural water body shaped like a crescent moon. Assam Chief Minister Sarbananda Sonowal, who attended the just concluded fair, said people have a lot to learn from these practices of the Tiwas which exemplify the cashless tenets of the modern day society.
He also announced that a permanent plot of land for the fair would be allotted so that the historic event can continue to thrive in the future and tourism receives a boost to benefit the local people. “On the occasion of the mela, a big market is held here where these tribes exchange their products in barter system which is perhaps the only such instance in the country,” secretary of Junbeel Mela Development Samiti, Jur Sing Bordoloi said. A few days before the fair, members of Tiwa, Karbi, Khasi and Jaintia tribes come down from the neighbouring hills with various products. The products usually traded during the fair include ginger, bamboo shoots, turmeric, pumpkin, medicinal herbs, dried fish and ‘pithas’ (rice cakes). The fair is declared open by the ceremonial ‘Tiwa’ king Deep Sing Deoraja, (also called Gova Raja as the ancient kingdom of the Tiwas was known as Gova) who along with his ‘courtiers’ participates in a community feast and then collect a customary tax from his subjects.

Bordoloi pointed out that the significant part of the fair was its theme of harmony and brotherhood among various tribes and communities and they also perform their traditional dance and music to celebrate it. As per tradition, community fishing is held on the second day of the fair and people from all walks of life participate in it with great enthusiasm. “I have been coming here and taking part in the barter trade since my childhood. This is a very old custom of ours and is the most important event of the mela though we also enjoy the fishing, singing and dancing,” said 60-year-old Raja Bordoloi, who emptied his stock of dried fish in exchange for ginger and medicinal herbs. The fair, which has been dated to 15th century by historians, begins with an ‘Agni Puja’ (an obeisance to the fire god) for the well-being of humanity.

The erstwhile Congress government in the state, in its bid to promote this unique fair, had announced an ‘Annual Royal Allowance’ for the 19 customary kings from different communities under the Gova kingdom, which include parts of three districts of Assam — Morigaon, Nagaon and Kamrup. “The step taken by the Assam government is indeed welcome and we had been demanding it for long as the economic conditions of all these customary kings is going down. We also urge the government for more assistance to hold the traditional fair which is unique in today’s world,” Deoraja said. Sonowal handed out cheques of royal subsistence grant to Gova King Deep Sing Deoraja and other 17 ceremonial kings of Tiwa Kingdom and announced that the payment of these grants would be regularised from now onwards.

Assam: Fresh fish at the click of the mouse soon


Soon, you will be able to get your favourite fish, whether local or imported, at the click of the mouse. Assam Apex Cooperative Fish Marketing and Processing Federation Limited (Fishfed) will launch an online purchase platform this financial year through which consumers can place their fish orders online. “We are in the process of building an integrated communication technology. We should be ready within this fiscal,” Fishfed Managing Director Ghana Pegu told
The Assam Tribune. Initially, Fishfed would provide the facility to consumers of greater Guwahati area and later, depending on the viability, expand the area of operation. “Our men will take the orders to the customers’ doorsteps. Initially, we will not accept online payment, Customers will have to pay cash on delivery or through the card swiping machines the delivery men will carry,” Pegu said. Besides, fresh local ones and dressed fish, rare fishes will also be made available online.

“We will also take bulk orders, say for marriages and other functions. But these orders will have to be placed in advance,” the MD said. Meanwhile, in view of the Bhogali Bihu, Fishfed has opened seven outlets – at its office at Rupnagar, Wireless, Chandmari, Noonmati, Kahlipara, Ulubari and Maligaon, to sell fish in Guwahati. The live local sitol fish – available in various sizes - have been priced at Rs 650 per kg, while imported katla, some even weighing up to 7/8 kgs, are being sold at Rs 230 per kg and rohu at Rs 160. “We have procured two quintals of live sitol and another 1,400 kg of different variety of fish for this Bihu. People can buy the fish till Friday noon at these points. Most of the local fish has been procured from Barpeta,” the MD said. Fishfed official Arup Jyoti Patgiri said last year Fishfed had procured some 50,000 kgs of fish from its societies in the State for marketing. There are 256 registered societies under Fishfed, with a farmer base of around 23,000 spread across the State.

Assam: Darrang fish mahal reaps profits by supplying local varieties


Preparations for the celebration of Bhogali Bihu are in full swing on the eve of Uruka today. The community feast on the night of Uruka under the bhela ghar is always considered to be of special significance. And the community Uruka feast is not complete without the local fish dishes. At a time when fish is being imported from States like Andhra Pradesh, Uttar Pradesh, etc., local fishes are always at a premium, especially for the lower income groups. But there is some good news. Management committees of some community fisheries like the Suri Pukhuri Meen Mahal Committee and Lakhimpur Anchalik Meen Mahal Committee near Balipota village under the Kalaigaon Development Block in Darrang district have been contributing to the local fish varieties amid the huge demand of local fishes for Uruka. “The demand for fish produced in Suri Pukhuri Meen Mahal, covering a land area of above 20 bighas, is on the rise as most local varieties of fish like chital, rohu, bhakua, silver carp, common carp, etc., are bred under completely natural conditions without the use of chemicals,” said Gajen Sarma, president of Suri Pukhuri Meen Mahal Committee.

“Moreover, we fix the rates in consideration of the purchasing power of rural consumers, which are 20 to 30 per cent less per kilogram in comparison to the prices prevailing in the retail market ahead of Uruka,” he maintained. Sarma said that last year in the Uruka markets in Guwahati, Mangaldai, Tangla and Kharupetia, besides his native village, the Mahal supplied about 60
quintals from which they managed to earn a net profit of around Rs 10 lakh. “This year we have already sent nearly 50 quintals of fish to Guwahati and Mangaldai and expect another 20 quintals for supply on Friday morning. We hope to increase our net profit to Rs 15 lakh,” Sarma added.

Apart from Suri Pukhuri, Lakhimpur Anchalik Meen Mahal, which consists of an area covering around 100 bighas of land, is also a major supplier of local fish in the Uruka market. However, this year’s yield of the fishery in terms of size and volume has not been satisfactory after the death of nearly 40 quintals of fish due to environmental reasons some months back, a source of the fishery management committee. Meanwhile, the Darrang District Fishery Development Department has estimated a demand of approximately 40 tons of local fish on Friday in comparison to that of 36 tons last year. Apart from these two community fisheries, the Fish Production Organisation of Dighirpar and fish farmers of Janaramchowka village are also ready to supply local fish in the Uruka market, a source added.

**Assam: Police crack down on fishing in Deepor Beel**


Police have prohibited the assembly of more than five persons in and around the Deepor Beel Wildlife Sanctuary to prevent community fishing during Magh Bihu. "The order shall remain in force till January 31. Any person aggrieved by the order is at liberty to appear before Guwahati West police district to file a written objection," police said. The order after the forest department informed the authorities that people from villages around Deepor Beel were likely to fish in the water body during Magh Bihu in violation of the provisions of the Wildlife (Protection) Act, 1972.

**Assam: Fishery implements distributed among beneficiaries**


Karimganj MP Radheshyam Biswas urged upon the fishermen of Matijuri Paikan to make use of the implements given away by the government to raise production to ameliorate their economic condition. Speaking at a distribution function organized by the District Fishery at its office complex, MP Biswas said the farmers must make proper use of the implements to raise their standard of living, stated a press release. “I urge upon the beneficiaries to make optimum use of the implements provided by the administration to raise production as well as their income for a better life,” he said. Biswas cautioned them not to sell-off the implements for one-time gain but to make proper use for long term gains. “If you sell-off the implements, you will earn only once. But if you make proper use of the implements, you will continue to make regular profits out of it,” he said.
Deputy Commissioner Moloy Bora, too urged upon the farmers to pitch in their efforts to make Matijuri Paikan an economically vibrant and resilient model village under Sansad Adarsh Gram Yojana (SAGY). Bora appealed to the beneficiaries to make use of the implements to supplement their income and not to fall prey to the evil machinations of vested circles by ‘selling off’ (the implements) for petty gains. MLA of Hailakandi, Anowar Hussain Laskar exhorted upon the beneficiaries to make optimum use of the implements to get regular flow of income. Laskar assured the farming community that they would get all the facilities once Matijuri Paikan comes up as a model village under Sansad Adarsh Gram Yojana. MP Radheshyam Biswas and Deputy Commissioner Moloy Bora gave away bicycles fitted with containers, cast and drag nets to some of the beneficiaries in the presence of the MLA Hailakandi and fishery officials. Altogether 17 beneficiaries got bicycles with containers, 26 cast nets and 10 drag nets.

Assam: Bid to develop ornamental fisheries in NE


The National Fisheries Development Board (NFDB), an autonomous body under the Ministry of Agriculture, Government of India, is keen to develop ornamental fisheries in the Northeast, including Assam. Ornamental fishes, also known as ‘living jewels’, have been attracting the unemployed youths in the State to try out other option of livelihood. It needs to be mentioned that exotic ornamental fishes have seen a rise in domestic demand, while the indigenous variety is becoming popular abroad. Of the available 267 fish species in the region, about 50 have attracted international attention, an official in the Fisheries Department stated.

“The main advantages for trade in exotic ornamental fish include – they require less space, the same water can be used for several times, and the technology is easy to use,” said the official, adding that the domestic demand for aquarium and ornamental fishes is about 20 lakh per month in the State, and nearly 50 per cent of them are produced in the State. Considering the potential of this sector, the NFDB has already sponsored two national workshops on ornamental fisheries at the Gauhati University and St Anthony’s college, Shillong. The NFDB Regional Centre, Guwahati, also organised a three days’ training programme on ornamental fisheries in collaboration with ICAR-CIRI, which was attended by a total of 52 participants from different parts of this region.

Assam: Stress on systematic, scientific fish farming


A workshop on the theme ‘Fish Feed Formulation, Preparation and its Importance in Northeast India’ was organised recently by the National Fisheries Development Board (NFDB) in collaboration with ICAR-Central Institute of Freshwater Aquaculture (CIFA) and ICAR-Central Inland Fisheries Research Institute (CIFRI) at ICAR-CIFRI, Regional Centre here, stated a press
release today. Altogether 35 entrepreneurs from the North East took part in the programme. The workshop was inaugurated by Fisheries Minister Parimal Suklabaidya, who was also the chief guest of the function.

In his inaugural address, he emphasised the need for systematic and scientific fish farming to ensure a good source of livelihood for fish farmers’ families. He laid stress on supplement feed in the fish farming system for better return. Dr Sanjay Sarma, Officer in Charge, NFDB Regional Centre, Guwahati gave the welcome address. SK Das, State Director of Fisheries, who was present in the inaugural session as a special guest, highlighted the need for setting up a fish feed industry in the region to promote growth of the fishery sector in the State and the country as a whole. Dr KN Mahanta, Principal Scientist and Head, Nutrition Department, ICAR-CIFA, highlighted the production potential of aquaculture in India and importance of use of fish feed in aquaculture. He talked in detail about the use of locally available alternative protein sources for minimising fish feed cost. He encouraged the participants to resort to better fish feeding techniques for increasing fish production.

Other resource persons, including Dr KC Das, Dr SC Rath, Dr BK Bhattacharjya and Dr Dandadhar Sarma, also highlighted different aspects of fish feed production and management specially suitable for the north-eastern region. At the plenary session, apart from the resource persons, Dr Dilip Kumar, ex-vice chancellor of CIFE, Mumbai and Dr RS Biradar, ex-joint director, CIFE, Mumbai also interacted with the participants. They were of the opinion that the four points needed to be remembered for fish feed industry in the region were, awareness about use of fish feed, farm-made feed concept for small and marginal farmers, assessment of feed demand and supply and commercial feed production.

Assam: Assam imports fish from other states despite huge potential


Assam imports fish from other states like Andhra Pradesh despite having huge potential for fish farming. Parliament was informed today. The state imported 14,835 tonnes in 2015-16, higher than 12,531 tonnes in the year-ago period. "Assam imports fish from other states though the state has huge potential for fish farming in water resources such as ponds, tanks, beel, oxbow lake, swamps, low lying (areas) and reservoirs," Minister of State for Agriculture Sudarshan Bhagat said in a written reply to the Lok Sabha. During the last three years, Assam has imported fish, mainly from Andhra Pradesh, Uttar Pradesh and West Bengal, he said. To a query whether the Centre has formulated any special scheme to promote fish farming in the state, Bhagat said the the Centre has restructured the existing schemes under the umbrella of central plan scheme called 'Blue Revolution: Integrated Development and Management of Fisheries'.
The scheme focuses mainly on increasing fisheries production and productivity from aquaculture and fisheries resources. Besides, the state government is implementing schemes for development of fisheries, he added. To promote fishery sector, the minister said the Centre is providing financial assistance to coastal states for setting up of fishing harbours based on the techno-economic feasibility reports. Many states namely Maharashtra, Karnataka, Gujarat, Tamil Nadu, Andhra Pradesh and West Bengal have shown interest, he said replying to a separate query. That apart, the central share for fishermen under the saving-cum-relief scheme has been enhanced to Rs 1,500 per fisherman, from Rs 900, effective this financial year.

Assam: Breeding and trading of ornamental fish â€“ a profitable venture

To promote entrepreneurial competencies and for enthusing new generation business ideas among students, the UGC-Deen Dayal Upadhyyaya Kaushal Kendra has set up an Ornamental Fish Breeding Centre in its campus at Tengakhat College. Attending the meeting as a chief guest, the national secretary of Yuva Vikas Society (YVS), a premier NGO of New Delhi, Ashish Vilas Bhave, who works in the Youth Development Sector, inaugurated the newly-built aquariums for fish breeding in Aqua World. Gracing the inaugural event, the Principal of Tengakhat College and Director in-charge of UGC-DDU KK, Dr Kiran Hazarika in his deliberation elaborated on the various youth development activities being undertaken in the entire country. Breeding and trading of ornamental fish is the latest profit-making venture for many youths in the country. Bright colours, contrasting stripes and spots, they come in all colours, designs and sizes, swimming with a lazy countenance in placid aquamarine waters. Aquariums with ornamental fish lend a sense of serenity and beauty to the space they occupy and are popular in all metro cities.

The Red Cap, Black Gold Fish, Bubble Eye Gold Fish, Angel Fish, Fighter, Guppy, Sharks and many others that adorn the living rooms or star hotels are actually bred and nurtured in large quantities in rural areas. By taking the advantage of good climate and availability of required resources at a cheap rate, in future the project may be expanded to house-to-house level in Tengakhat for the benefit of unemployed youths and housewives by DDUKK. There is lack of knowledge about the breeding business of ornamental fish in Assam in comparison to the ornamental fish activities carried out in the States of West Bengal, Maharashtra, Karnataka, Tamil Nadu and Kerala, where a few number of people initiated the activity of ornamental fish breeding. Most of the ornamental fish activities are concentrated in five States of India -West Bengal, Maharashtra, Karnataka, Tamil Nadu and Kerala. Initially a handful of people started breeding ornamental fish in these States, with most of them having good business in this sector. The demand for ornamental fish and skilled aquarium designers are increasing in the State as there is no such organized business on ornamental fish breeding.
To fill the vacuum, some students of B.Voc under UGC Deen Dayal Upadhaya Kaushal Kendra, Tengakhat College, after analyzing the demand supply gap, formed a group named ‘Aqua World’ in the college for ornamental fish breeding and for its trading. In this context, the coordinator of the project, Radheesh Gopalan, by elaborating the aims and objectives in his speech, said that at first the Centre would start its business with Red Cap, Bubble Eye, Gold Fish, Black Gold Fish, Siamese Fighter Fish, Angel and Guppy and as per demand in the coming days, they would breed some more varieties of ornamental fish here.

**Assam: Erosion takes grim turn in Morigaon district**


The Brahmaputra’s erosion in riverine areas under Lahorighat revenue circle in Morigaon district has taken a grim turn in the last few days rendering 40 families homeless in Kathoni village, official sources said. The affected homeless people took shelter on dyke and nearby highlands. Though the water level of the Brahmaputra is down, yet the devastating erosion of the mighty river is going on in several parts of the dyke of the river in Lahorighat and Bhuragaon revenue circles under Morigaon district. The Kathoni village and its surrounding areas were affected due to the erosion forcing the villagers to go nearby areas. In the area, one high school, one health centre, one panchyat office are on the verge of going into the bosom of the river.

The catastrophe caused by the Brahmaputra during this year’s monsoon has led the rural economy of Bhuragaon and Lahorighat to a moribund state. All crops and vegetable fields were devastated. The flood and erosion affected the agriculture sector besides damaging fisheries and animal husbandry. The road communication systems in rural areas of Lahorighat and Bhuragaon were completely damaged. The additional dyke constructed in between Bhuragaon and Baralimari at the cost of Rs 5 crore by the Rural Development Department was breached during the last flood in the month of August. Now the river may again cause devastation in between Bhuragaon and Mayong as there is no erosion-protective measure in the 27- sq km area along the bank of the Brahmaputra.

**Assam: Swachtta Pakwada campaign**


As part of the Government of India’s Swachtta Pakwada campaign, the State Department of Fisheries, in association with the National Fisheries Development Board (NFDB) organised a workshop today on hygienic fish handling in the conference hall of the Directorate of Fisheries. In his welcome speech, SK Das, Director of Fisheries laid stress on achieving the desired goal of the fishery sector in the State. Jurie Deka Thakur, Joint Secretary to the Government of Assam, Fishery Department inaugurated the workshop, which was attended by scientists, researchers, administrators and a large number of fish farmers and fish traders. She hoped programmes like
this would help the fishery sector in the coming days. Dr BK Bhattacharjee, head, Central Inland Fisheries Research Institute, NE region and Dr Sanjay Sarma, officer in-charge, NFDB, Regional Centre among others were present as guests of honour. Dr Sarma hoped that such programmes would strengthen the fishery sector and assured of every possible help from the NFDB. Dr Bhattacharjee shared his ideas about how to handle fish hygienically in a scientific manner.

Assam and West Bengal: Bengal traders throng Dhubri markets for â€’hilsaâ€™

http://www.assamtribune.com/scripts/detailsnew.asp?id=oct2816/state051

With the price of hilsa fish dropping drastically in the fish markets of Dhubri district, the traders from neighbouring West Bengal are thronging the markets in great numbers. The price of the ‘King of Fish’ has hit all time low in the markets of the town as the hilsa that normally costs Rs 900 to 1,200 per kg has come down to Rs 300 to 350 per kg. In these rates, the hilsa is available especially in the fish markets of Dhubri, Gauripur, Golakganj and Bilasipara. Interestingly, traders from the neighbouring State and from other parts of Assam can be seen every year during this period in the Dhubri markets for bulk purchase. “We have almost made it a part of our routine to visit Dhubri during this time of the year to buy hilsa because of the price drop,” said Pradip Sarkar, a trader from Coochbehar, who is in Dhubri for the purpose. “I am trying to buy hilsa as much as possible. As this fish is always in demand in West Bengal market,” he added. Meanwhile, Biman Goswami, another trader from Guwahati, said, “This fish has great demand even in Guwahati.

We have been trading hilsa from Dhubri for years, but in recent years its availability has become very good.” However, according to local fish traders, such availability of the fish has not helped them much. Due to availability of hilsa during this time they have to sell them at a loss. “Although, the trade has increased but the business for the local traders has not been substantial,” said Kabil SK, a fish wholesaler of Dhubri town. “We can not preserve hilsa for long. We have to sell it fast and the price is dropping daily in an alarming rate, because of which we need to sell the fish at a loss,” he added. Explaining the reason behind such availability of hilsa in Dhubri, officials of the Fishery Department said that the Bangladesh govt prohibits fishing during this time of the year as this is the season for fish like hilsa to lay eggs. The hilsa fish always swims upstream to lay eggs and the parts of Brahmaputra river and its tributaries in Dhubri are in the upstream. So, the fish lay eggs here.

Assam: Bhutan blamed for devastation in Manas National Park

http://www.assamtimes.org/node/17857

The Manas National Park and Tiger Reserve suffered huge loss as flood waters of river Beki inundated 60 per cent of the Park since the last four days. Floodwaters entered the Park breaching the embankment at Panchmile under the Bansbari Range and submerged large areas of
National Park on Wednesday night. The release of waters from the Kurichu dam by Bhutan has been attributed to the untimely disaster. “The waters have receded now but have left a trail of devastation. The flood breached the embankment at three sites making the Park all the more vulnerable, besides damaging most of the roads making movement almost impossible,” Dharanidhar Boro, deputy director of the Park said. “The bridge at Lata jhar was washed away cutting off road communication to Bhutan.

The picturesque Mathanguri, main attraction for tourists, remains cut off as the road to Mathanguri was also washed away. Many animals took shelter on narrow strips of highlands. However, there were no reports of animal casualties. The forest beat camps in the Park---Bispaani, Burha-burijhar, Latajhar, Kuribeel, Bhatgali, Kahibari, Katajhar were reeling under 5/6 ft of flood water,” Boro added. Manas National Park was opened for tourists on October 1 but authorities are now seriously thinking of limiting tourist access to the Park. Tourism in Manas suffered a setback during the 90s due to insurgent activities. Since the last 10 years Manas has been gearing up to make up for the loss of those years. The Park has also seen an increase in the number of footfalls since the last few years. But with the opening of the gates this ‘season’, the Park suffered a severe jolt. Tour operators fear another season to go waste as reconstruction and repair of roads will take time.

Agriculture, fishery affected Authorities of Barpeta and Baksa districts said there was no prior warning by Bhutan about the release of water, which flooded the Manas and Beki rivers, inundating large tracts of cultivation in these two districts affecting more than 24,000 people. Dhruva Nath, a local youth, lamented that this sudden surge has washed away the dreams of many like him who were engaged in pisciculture. Fisheries in many villages—Gyatigaon, Raghabeel, Chunbari, Kaalpani and Narayanguri received a setback as the gushing waters Beki and Manas devastated the ponds and tanks in the districts bordering the Himalayan nation. A State Disaster Management Authority official said that 12 villages in Kalgachia revenue circle in Barpeta district were inundated by the sudden rise in water level in the Beki river. Beki and Manas are the two principal tributaries of the Brahmaputra in lower Assam. Earlier instances although there is an agreement between India and Bhutan to share information on the release of water from the Kurichu dam, Bhutan allegedly continues to release water from the dam without sharing the information with the Indian (Assam) authorities.

There are instances when unannounced release of water Kurichu dam by Bhutan jeopardized the lives of thousands of people downstream. The sudden surge of water released on Wednesday once again caught Assam authorities off-guard. It so happens that during incessant rains, waters from the dam is released flow down to Assam. In July this year, there was a sudden rise in the water levels of the Beki river that washed away a part of the embankment at Panchmile, inundating the entire Manas National Park. In June 2010, hundreds of villages in the two districts of Barpeta and Baska were severely affected. Huge loss and devastation in the floods of 2007 were also attributed to Bhutan. In 2004, Barpeta and Nalbari districts were flooded suddenly. It
was reported later that an artificial lake on the upstream of Kurichu dam burst that was located north of the international border shared by Assam.

The Kurichu continues to be a nightmare downstream, having created havoc at regular intervals. In the last 10 years, over one lakh families were rendered homeless while more than 60 thousand hectares of farmland were devastated in the downstream districts of Baksa, Barpeta and Nalbari as estimated by the Assam Disaster Management Authority. Downstream concerns

The Manas River (Drangme Chhu in Bhutan) is a transboundary river in the Himalayan foothills between southern Bhutan and India. It is the largest river system of Bhutan. The DrangmeChu, also the largest drainage in Bhutan with area of nearly 18, 300 square kilometers, connects the Bhutanese Himalaya and the Indian subcontinent. Bhutan decided to build a hydropower dam over the KuriChu and DrangmeChu to cope with the increasing demand of power in Bhutan. The Himalayan kingdom now earns more than 50 per cent of its revenue from its sale of hydroelectricity. Interestingly, the Indian government has aided Bhutan in all its major hydel projects, including Kurichu.

The government of India invested 560 crore in Kurichu Given the complexities involved in the exercise of the extracting electricity through large dams and the haste in which the projects are pushed through without addressing the genuine concerns such as downstream impacts in the form of floods, sedimentation, deposition of sand and morain, loss of biodiversity and livelihood of people, seismic vulnerability etc, the situation definitely calls for a resentment of the Central Government’s hydropower policy for the north-east Indian region, specially Assam. The state is already a victim of dam-induced floods several times in the recent past. Further, the threat of Kurichu looms large on pristine wildlife habitats like Manas—a world heritage site, an elephant project, a tiger project and a biosphere reserve. Situated on the western flanks of Assam, Manas National Park is one of the most vibrant forest ecosystems in India. Situated on the foothills of the eastern Himalayas, brushing the Bhutan border, this pristine and primordial wilderness reserve is a treasure trove of biodiversity.

Chandan Kumar Duarah of Centre for Conservation, Education and Research (CCER), voiced the concern of the downstream people. “the situation prevailing in Manas is likely to happen in wildlife habitats of upper Assam when hydro electric power projects are commissioned in Tibet and Arunachal. Happy Bhutan has been unleashing unhappiness in the form of water to the people of Assam for years without informing concerned authorities. While the Union Government and stakeholders are opposing Chinese dams on the Himalayan rivers flowing into India, our government is not concerned over dams built by Bhutan over trans boundary rivers. On the other hand, the Union government is patronizing hydro projects upstream in complete disregard to the interests of the people of Assam downstream.”

Assam: Move for self-sufficiency in fish production
The ICAR- Central Inland Fisheries Research Institute, Guwahati Regional Centre organised an interactive workshop, “Aquatic Animal Diseases in Assam” under the National Surveillance Programme on Aquatic Animal Diseases (NSPAAD) on Tuesday. A total of 77 individuals, including fish farmers, government officials from 17 districts of Assam and other officials took part in the workshop. Dr BK Das, Director, ICAR-CIFRI, welcomed the participants and emphasised developing fisheries in the NE region with assurance of technical support and co-operation from the institute. He outlined the activities carried out by the institute in the State. Dr AK Sahu, DBT visiting professor and former head of aquaculture production, ICAR- CIFA, emphasised water fisheries development in the NE region. MC Jauhari, Principal Secretary Fisheries, Government of Assam, outlined the steps initiated by the State Department of Fisheries for attaining self-sufficiency in fish production. He stated that at present the State is producing 2.94 lakh tonnes against a demand of 3.25 lakh tonnes, thereby reducing the gap to 42,000 tonnes. “The department has launched an ambitious scheme ‘Ghare ghare pukhuri, ghare ghare machh’ for increasing area covered under pond aquaculture in 25,000 villages of the State,” he revealed.

He requested the Director, ICAR-CIFRI, Barrackpore, to provide technical support for fish disease management to the department by entering into an MoU. The Principal Secretary also released the workshop manual. The technical session which followed, enlightened the farmers on various topics as chemotherapy and aquaculture medicine, breeding of magur and larval rearing, prevailing fish diseases in Assam and best management practices in aquaculture. Dr BK Das, Dr AK Sahu, Dr BP Mohanty, Dr BK Behera, Dr AK Sahoo, Dr KK Tamuli and Dr B Kalita acted as resource persons at the workshop. State Minister of Fisheries Parimal Suklabaidya and Bimal Borah, MLA, Tingkhong constituency, attended the valedictory session of the workshop. Addressing the gathering Suklabaidya emphasised making Assam self-sufficient in fish production. He reiterated the need and importance of controlling fish disease to reduce economic losses. He also highlighted the recent initiatives of the Government of Assam to bring about a blue revolution in the State and improve export of fish from the State.

**Assam: Angling fest in Nagaon from Oct 1**

An angling festival and a workshop on recreational fisheries and eco-tourism in North East India will be held in Nagaon from October 1. The two-day programme is being organised by the Jasingfa fish-based eco-tourism centre in collaboration with the ICAR-Directorate of Coldwater Fisheries Research, Bhimtal, and the Coldwater Fisheries Society of India. It may be mentioned here that Jasingfa is the first fish-based eco-tourism centre of the State and is situated at Dimoruguri, Nagaon. This centre has been attracting a sizeable number of foreign tourists.
besides domestic tourists. Internationally noted scientists, policy makers, anglers, environmentalists, researchers, tourism experts and government officials will attend the workshop. A special programme with school students on conservation and angling will also feature during the event.

**Assam: Lightning kills four fishermen**

http://thenortheasttoday.com/assam-lightning-kills-four-fishermen/

In a tragic incident, four fishermen died after being struck by lightning on Dandua Beel (pond) in Morigaon district of the state on Tuesday. Three others who were also fishermen, were critically injured. Chief minister Sarbananda Sonowal expressed grief over the deaths and announced Rs four lakh ex gratia for the kin of the deceased. He also announced Rs 60,000 for the injured. Sonowal also directed the deputy commissioner of Morigaon to make arrangements for the treatment of the injured in a proper manner.

**Assam: Brahmaputra leaves a desert behind**

http://indiaclimatedialogue.net/2016/08/16/brahmaputra-leaves-desert-behind/

In a village about 20 kilometres from Lakhimpur – the main town on the north bank of the Brahmaputra in Assam – Kushal Das stands on the road and strains his eyes to locate dry patches in his farmland. All he sees is muck and water. Although there has been some respite from the constant rains, and the floodwaters have started receding, the farmer knows better than to smile in relief. “The river has taken away my land’s fertility,” he says, unsure of what the future holds. Das is not alone in his predicament. As floodwaters of the Brahmaputra start receding – at least for now – the farmers are not celebrating. Instead, they are staring at what the waters have left behind – more sand than silt. Their farmlands are now infertile. “Aagote enekua naasil (It wasn’t always like this),” says Lakhi Gogoi, another farmer in Lakhimpur. “Earlier, after the floodwaters receded, we could still plant our paddy, we could still hope for a decent harvest. But in the last few years things have changed.

The soil left behind is very sandy and coarse, unfit to grow paddy.” With the South Asia summer monsoon barely halfway, Assam has already had three floods this year. At least 49 people were killed and 4.1 million affected, Pallab Lochan Das, minister of state for disaster management, told legislators last week. Of the 35 districts in the state, 29 are flood-hit. The minister said 41,426 hectares of cropland had suffered “massive damages”. The Kaziranga National Park was among the worst-hit. Nearly 80% of it was inundated; animals were killed or swept away. See: From drought to floods in 45 days. Floods damage, but they also used to bring a boon. For millennia, the annual flooding of rivers that flow down from the Himalayas – especially the Brahmaputra – has replenished the soil of South Asia, South East Asia and East Asia with silt.
This material – in size the particles are somewhere between clay and sand – is largely mineral-rich rocks from the Himalayas that the flowing river waters have broken down into granules.

The deltas of Asia – of the Indus, Ganga, Brahmaputra, Irrawaddy, Salween, Chao Phraya, Mekong, Yangtze or Yellow rivers – are essentially made up of silt that the floodwaters left behind when they receded. This regular replenishment of silt has maintained soil fertility in this intensely farmed continent. But the Brahmaputra has not been doing this for the past few years, in Assam or downstream in Bangladesh. “The river’s waters have started leaving behind more sand than silt,” Partha Jyoti Das, head of the Water, Climate and Hazards Programme of the Guwahati-based think tank Aaranyak, told indiaclimatedialogue.net. Effect of climate change

There are various reasons for this change of behaviour, he said. Climate change is one of them. “It has always rained a lot during monsoons, and floods have always happened in Assam. But over the last few years, the intensity of rain has increased. So now you have heavy spells of rains over a handful of days instead of a stretched-out period, resulting in flash floods. This is because of climate change.” When it rains hard, the water flows down the hills faster – from Bhutan and Arunachal Pradesh to the Assam valley. It also dissipates with more force. Scientists have measured that major tributaries of the Brahmaputra, such as Ronga Nodi and Hingora, have faster water flows than before.

“The cumulative effect of this micro seismic activity or vibration that takes place every day, combined with the monsoon, makes the Himalayan hills erode more easily,” Das explained. “This sediment goes to the river channels. Then again, with more development activities taking place in the hills, there is more digging of the soil for building dams, roads and factories. This sediment again goes to the rivers.” “As a result of all this, the river gets laden with an abnormally large quantity of sediment. Now, normally, the river would break all this down into tiny particles, which is silt. But now the sediment load is too high. So much of the sediment remains as large coarse particles, which ultimately gets left behind in the fields when the floodwaters recede.” Effect of dams

Some experts blame the building of a spate of dams on the Brahmaputra — more specifically, the run-of-the-river projects — for the change in the composition of what the floodwaters carry.

In a run-of-the-river project, a dam is built in the river and the water diverted to a tunnel. The silt-laden water is first taken to a settling tank, where the silt settles at the bottom so that it does not damage the turbine blades when the water turns the blades to generate electricity. The silt-free water is then led back to the river. Policymakers who approve these hydroelectricity projects know the importance of silt downstream, so they have ensured the silt gets back to the river through an exit at the bottom of the settling tank. The trouble is, this silt then accumulates behind the dam wall, where there is not enough water flow to carry it along. Most of the water is led back to the river up to 10 kms downstream, after it has done its job of turning the turbine blades. See: Brahmaputra dams hold back silt, not water. But Partha Jyoti Das is not sure to what extent the dams are responsible for the deposition of sand rather than silt. He points out that the dams
are a “fairly recent” phenomenon, while the silt-to-sand change by the Brahmaputra has been gaining momentum over the last two decades.

Effect of embankments Himanshu Thakkar, coordinator of the South Asia Network on Dams, Rivers and People (SANDRP), has another explanation. He blames the embankments that line the Brahmaputra to protect people from floods. “Where there are embankments, sand (from the river water) accumulates while the silt flows downstream. Embankments provide temporary flood protection, and, as seen in several cases, they are then breached. The breach starts with a hole in the embankment and water flows through it, taking along the sand that has accumulated. This is also called sand casting,” Thakkar said. Comparing the situation with other places in India and with other rivers, he added, “I have seen similar cases of sand casting in Gorakhpur (Uttar Pradesh) in the early part of this millennium. It has happened in the Koshi flood plain.” Das, the scientist from Aaranyak, agreed, and added that the concrete embankments hold back sediments till they breach, and then everything mixes with the floodwaters. “Since this sediment has more sand than silt, it is sand that gets deposited in the farms,” he said.

“In some areas on the north bank of the Brahmaputra, the river is taking away the top fertile layer of soil, and started leaving behind five-six feet of sand. It will take at least five years, may be even seven or eight years, to reclaim this soil. Until then nothing will grow on it,” Das said. “There are places like Jiaidhol in Sonitpur district where the river has left behind 10 feet of sand.” Adaptation through new crops Where there is an appreciable amount of silt mixed with the sand, traditional rice farmers are now growing other crops on the advice of experts – watermelons, peanuts, kidney beans, sugarcane. Akhil Sharma, a local farmer activist, however feels that these measures are not enough. “Even when he is growing watermelons, a farmer here keeps hoping that very soon his land will be fertile enough for rice, which he will harvest in quantities large enough to both sell and consume for the whole year. And where the soil has become too sandy, the farmer can grow nothing. Until special measures for soil reclamation are introduced, the farmers are staring into an uncertain future.” Experts also say that there is an urgent need for a scientific study of this phenomenon.

Assam: Kokrajhar latest dist to go under water


The flood situation in Assam continued to be desperate on Thursday with 1.80 lakh people affected across seven districts. Kokrajhar became the latest district to be inundated. According to the Assam State Disaster Management Authority, there was no let-up in the rise of water level of the Brahmaputra and its tributaries on Thursday. The Brahmaputra, which originates in the Tibetan plateau, continued to flow above the danger mark at Nematighat in Jorhat, Tezpur in Sonitpur and in Dhubri on Thursday. Tributaries of the river like Dhansiri, Jia Bharali,
Puthimari, Beki and Sankosh also flowed in spate. Almost 19,000 hectares of agricultural land remained inundated on Thursday and some new areas, too, went under water. The situation in Golaghat and Jorhat in upper Assam turned grave on Thursday with over 60,000 and 50,000 people affected in the two districts, respectively.

The floods have spelt disaster for areas like Malowpathar, a major fish production hub of the state about 8 km from Jorhat city. The fisheries of Malowpathar provide employment to hundreds of youths in the district which has over 6,000 fish ponds and tanks spread across 1,177 hectares. Many of these fish ponds have suffered during the second wave of floods in the state. 
"The floods have dealt a devastating blow to fisheries. All the ponds in our locality are under water. Many families had invested money in the fisheries but they have lost their fishes and funds. I don't know how this sector will be revived," Basanta Gogoi, who works in a local school, rued. Officials of the state fisheries department said they were assessing the damage caused by the floods.

Assam: Toxic materials kill fish in Deepor Beel


Here is yet another report confirming the death of fishes in the Deepor Beel, the lone Ramsar Site wetland of the State, due to contamination of its water by the toxic materials that find their way into the water from the municipal solid waste (MSW) dumped by the authorities on its fringe area at Paschim Boragaon. The report submitted by the Fishery Extension Officer of the Chayani Borduar Development Block of Kamrup District on October 19 last year, was made available by the fisheries department to RTI-cum-environment activist Rohit Choudhury in response to an RTI application recently. The report states, “The contamination of water of the beel is mainly due to leakage of the toxic water from the dumping ground. Thus, if we can stop this leakage, we can stop the contamination of water in the beel and save the aquatic life.” The Fishery Extension Officer said that he had ‘specifically’ seen ‘catla, rohu and borali dying in the beel, floating lifeless in its waters.’

“It so happens that, the water from the dumping ground leaks into the Deepor Beel, that results in the contamination of its water, growing algae blooms which ultimately have a toxic effect for the aquatic animals in the beels, e.g., the fishes and kills them,” said the Fishery Extension Officer. The Deepor Beel has an enormous reserve of flora and fauna. Among its flora, microphytes, macrophytes, aquatic weeds, algae, plankton are found sufficiently. Among its fauna, minor carps (that is puthi, dorikona, bata, lachim-bhangan etc), Indian major carps (that is, catla, rahu, mrigal), exotic carps and tortoise are found. Besides these, chital, kanduli, borali, sal, sol, magur, singhi, amphibians, reptiles and avifauna are found. Many of its avifauna are migratory. Among the land fauna elephants, wild cats, porcupines are found, said the Fishery Extension Officer.

Assam: One lakh fish farmers to get insurance
The Assam Government has envisaged a scheme to provide accidental insurance coverage to one lakh fish farmers in the State. The scheme is being executed as a part of the new BJP-led Government’s 100 days programme for the promotion of fish economy and the development of fish farmers. Chairing a meeting on finalising the 100-day programme for the Fishery Department at the Assam Secretariat here today, Chief Minister Sarbananda Sonowal said, “The proposed insurance coverage will be in sync with the State Government’s commitment to develop the socio-economic conditions of the fish farmers of the State.” Moreover, steps have also been taken to supply two million fish seeds to 2,000 fish farmers at the rate of 1,000 seeds per farmer, along with registration of 150 hatcheries and 500 fish farmers. As a part of 100 days’ priority programme of the department, model schemes will be developed and awareness programmes will be launched in one block of every subdivision.

Further steps have also been taken for establishment of aqua-shop at Nagkata Pukhuri in Guwahati, he said. The Chief Minister laid stress on making an exhaustive fishery policy to revamp pisciculture in Assam and use it “as a ladder” in the State’s pursuit of development. He also asked the officers of the department to explore ways and means for large-scale production of fishes which have medicinal values. Fisheries Minister Parimal Suklabaidya, Chief Secretary VK Pipersenia, Principal Secretary for Fishery Department MC Jauhari, Commissioner and Secretary to the Chief Minister Sanjay Lohia and other senior officers were present at the meeting.

**Assam: World Fish Migration Day in Dimapur**

Anglers Association Nagaland (ANN), a govt. registered organisation with more than 400 members all over Nagaland, will celebrate the World Fish Migration Day (WFMD) on June 18 at Noune Resort in association with Mahseer Trust, All India Game Fishing Association, Pelagic Tribe, Mustad, Surecatch, Agwetor, and Zerek. 50 school children between the age group of 10-15 years will participate in the event, which will be held from 9am-5pm. The event will include talk about India and its Migratory Fish, activities like Angling for Conservation, Catching & Releasing a Fish, Handling a Fish, Fish Anatomy, Drawing and Painting and Birding, according to a press release. Resource person for the event is Derek Dsouza, a world renowned angler from Bangalore. To participate in the event, one can contact the organizers at 9402686734. The release further mentioned that the objective of WFMD in India is to educate the younger generations about fish, rivers, and conservation.

May 21 to June end is celebrated as World Fish Migration Day to create awareness on the importance of open rivers and migratory fish. The event is being celebrated in 263 locations worldwide. The concept of WFMD is that organizations from around the world volunteer to organize their own event around the common theme of: connecting fish, rivers and people.
Meanwhile, the goal of WFMD is to activate citizens around the world to join and take action, create awareness and commitment for free flowing rivers and open swim ways for migratory fish. Migratory fish of India include Mahseer (all species), Barramundi (Asian/Indian sea bass), Indo-Pacific tarpon, Indian shad and snapper. Some of these species are already endangered, while others, subject to several anthropogenic threats, may become threatened and potentially extinct in the future if they are not given urgent attention, the release stated.

Assam: Assam environmentalists alarmed at proposed Wetland Rules 2016

http://www.arunachaltimes.in/assam-environmentalists-alarmed-at-proposed-wetland-rules-2016/

Assam’s rivers and wetlands which crisis cross the state may soon lose the much needed protection under the Central Government’s new Draft Wetland Rules 2016, a consultation meeting said today. To analyse the impact of the new Draft Wetlands (Conservation and Management) Rules 2016 on wetlands of Assam, environment groups Aaranyak and ActionAid jointly organised a consultation in Guwahati. Comparing the Wetland Rules 2010 with the Draft Wetland Rules 2016, the consultation found that the new Wetland Rules offers very few protective measures to Assam’s wetlands when compared to the 2010 Rules. The consultation suggested a complete revision of the Draft Wetland Rules 2016 to ensure better Wetland management and conservation in Assam. Aaranyak’s Wetlands expert Dr Partha J Das stated, “Many important provisions which were included in 2010 have now been removed from the new Draft rules which is alarming from an environmental perspective.

For instance, rivers have now been completely excluded from the definition of ‘Wetlands’. ” Today’s consultation recommended that at least those parts of a river or rivers directly connected to wetlands should also be recognised as part of the Wetland ecosystem and provided protection. It was also recommended that in the context of Assam’s wetlands, the connecting channels must be accorded similar protection, maintenance and restoration. The new Draft rules fail to mention the list of prohibited activities which were part of Wetland Rules 2010, which must be rectified immediately with the re-inclusion of the list to protect Assam’s wetlands, Das said. Stating under the Draft Wetland Rules 2016 only selective Wetland would be accorded protection, the meeting was of the view that the new Rules are therefore considerably weaker when compared to the 2010 version with an added Clause which states that ‘under special circumstances’ even these protection may be nullified.

“Such a clause can easily open a portal of exploitation of Wetlands in Assam, and it is of utmost importance that under no circumstance is the protection diluted,” he added. The key note presentation was delivered by Prasanna Barua of Assam Remote Sensing Application Centre, Department of Science and Technology, Government of Assam. Barua provided an overview of the current status of wetlands in Assam and highlighted the challenges in wetland conservation.
The conglomeration of environmentalists, academicians, lawyers and activists gathered during the event also proposed the introduction of a Wetland Conservation Act, which would be much more effective than the newly proposed Wetland Rules. Traditional community rights also have to be retained, but without compromising on the delicate eco-system of existing Wetlands, the meeting averred.

“Assam has more than 3000 wetlands under different categories and these wetlands are part and parcel of the larger eco-system. Gradual and changing ‘development’ work has led to degradation of important wetlands which also negatively effects communities around Wetlands”, commented ActionAid Programme Manager Swapan Singha. “We urge the Central Government to consider how the new Rules will impact the communities and make these new Rules to be people-centric while keeping in mind protection of the larger eco-system of Wetlands,” Singha said. The meeting decided to forward to the Union Ministry of Environment and Forest the recommendations made during the consultation. Aaranyak is a registered society working in the North East region for the past 26 years towards nourishing the area’s natural heritage to secure the flora and fauna in the region known as one of the biodiversity hot spots of the world.