

**Punjab News Articles**  
**from January 2016 to November 2022**

*From South Asia News Alerts*

<https://www.icsf.net/news/#southasiannewsalert>

*Compilation by ICSF Trust*



## **Punjab: Waterlogging-hit villagers take to shrimp farming in Muktsar district**

<https://www.tribuneindia.com/news/punjab/waterlogging-hit-villagers-take-to-shrimp-farming-in-muktsar-district-397135>

"Shrimp farming has become a boon for waterlogging-hit farmers in the district. The land, which had turned infertile, is now yielding Rs 4-5 lakh profit per year.

At present, 280 acres are under shrimp farming in the district. The area is expected to double this year. The Department of Fisheries has received applications from a number of farmers who want to start shrimp farming in 315 acres.

Under the Pradhan Mantri Matsya Sampada Yojana (PMMSY), the Central and state and governments give 40 per cent subsidy to the general category people and 60 per cent to women and those from the SC and ST communities to start shrimp farming. It takes nearly Rs 14 lakh to dig a pond in one hectare (2.5 acres), and purchase seed, feed and equipment.

Shrimp farming requires saline water and the salinity level should be five parts per thousand (PPT). Shrimp gets ready for harvesting within four months. The harvesting season starts in September and lasts till November. Mostly, traders from Andhra Pradesh and other coastal states come to buy shrimp here. The average price of shrimp is Rs 400 per kg.

Kewal Krishan, Assistant Director, Department of Fisheries, Muktsar, said: "Shrimp produced in our area is among the best. This is the reason it is exported to other countries. Encouraged by the success of some farmers, several others are now motivated to start shrimp farming."

A farmer gets 2.5-tonne shrimps from a 2.5-acre pond a year, fetching him nearly Rs 10-12 lakh. As nearly Rs 7 lakh is the input cost, a farmer makes a net profit of Rs 3-5 lakh per acre per year. "Some farmers, who were earlier into fish farming, are now turning to shrimp farming as it is more profitable. The DC is interested in starting shrimp farming on the village common land as well," Krishan said."

## **Pakistan: UNDP strives for viable development in Punjab**

<https://www.thenews.com.pk/print/957026-undp-strives-for-viable-development-in-punjab>

"Aligned with the commitment to support government in bridging the financing gap for equitable and sustainable development, United Nations Development Programme (UNDP) Pakistan, through its Punjab SDGs Support Unit, organised a consultation with diverse stakeholders on Financing for Development in Punjab at a local hotel on Wednesday.

The consultative session was the first of many to be conducted all over Pakistan and was held under UNDP's Insurance and Risk Finance Facility. These consultations aim to acquire in-depth knowledge of the on-ground landscape, opportunities, and issues of disaster risk financing in the provinces and will focus on informing and engaging policymakers and experts on UNDP's flagship initiative of Pakistan's first-ever SDG Investor Map.

Through its dynamic impact intelligence tool, the SDG Investor Map, UNDP will identify a range of market-specific investment opportunities for SDG-aligned capital deployment backed up by country-specific data and evidence. The consultation will contribute to UNDP's efforts in developing this map, in order to position the country in regional and global markets to encourage private sector investments. The consultative session also provided a platform to engage policymakers, SDGs experts, sector specialists, representatives of govt, the private sector, and civil society to discuss the regional context and suggest actionable policy recommendations on mainstreaming financing for development and building effective Risk Financing Regimes. The participants deliberated on the status and history of natural disaster-related vulnerabilities, gaps, development needs, and policy priorities for risk financing and SDG investments in Punjab. The need for development financing has intensified due to COVID-19-triggered sovereign debt crises, especially in developing countries like Pakistan.

The UN estimates that there is a US\$ 2.5 trillion annual gap in the US\$ 5-7 trillion in investment required to achieve SDGs. The role of the private sector is extremely important here, especially in the wake of multiple economic challenges and the burgeoning financing gap countries are facing.

Speaking at the occasion, Faisal Fareed, DG Punjab Disaster Management Authority, said, "Building disaster resilience is integral to effective risk management, and adequate financing and budgetary allocations for disaster management and preparedness are critical for enabling this. Punjab's geographic location and climatic conditions make it vulnerable to natural disasters, particularly river flooding, hill torrents, heatwaves, and earthquakes. There is a dire need that stakeholders must synergise efforts with the government and mobilise resources to ensure an effective response to climate change impacts. I congratulate UNDP for taking this critical

initiative and leading the way in finding innovative solutions for filling the gap in climate change financing.”

“UNDP Pakistan is committed to supporting the government to identify and prioritise investments toward the SDGs, access much-needed research and training to build the resilience of the disaster-stricken vulnerable communities and develop the capacities required to leverage private and public capital,” said Knut Ostby, Resident Representative, UNDP Pakistan.

“Punjab is the first province to develop its Integrated Financing Strategy that aims to bridge existing SDGs financing gaps in Punjab through innovative financing models to accelerate SDG's impact,” said Abdullah Khan Sumbal, Chairman of the Planning & Development Board Punjab. Other notable participants include Ms Ammara Durrani, Assistant Resident Representative and Chief, Development Policy Unit, UNDP Pakistan, Faisal Fareed, Director General, Punjab Disaster Management Authority, Dr M Hanif, Chief Meteorologist, Pakistan Meteorological Department, Mian Nauman Kabir, President Lahore Chamber of Commerce & Industries, Tariq Naseem, Additional Secretary Technical, Forest, Wildlife & Fisheries Department Punjab, Javed Afzal, Provincial Chief, SMEDA, Waqar Azeem, Member Production Sector, P&D Board Punjab, Sadaqat Hussain Khan, Member Energy, P&D Board Punjab, Masood, Director General, Punjab Public-Private Partnership Authority and Dr Amjad Saqib, CEO Akhuwat.”

### **Pakistan: 10-year ban on commercial fishing in Punjab rivers**

<https://www.dawn.com/news/1687971/10-year-ban-on-commercial-fishing-in-punjab-rivers>

"The Punjab government has for the first time imposed a 10-year ban on commercial fishing in the provincial water due to critical depletion of fisheries in the rivers. An order issued by Fisheries Department Secretary Shahid Zaman reveals that the ban shall come into force from Sept 1, 2022, and shall remain in force till July 31, 2032.

There shall be a complete ban on fishing by means of all gears except by rod and line in the waters, including River Indus within the boundaries of Punjab, its reservoirs and pond areas linked to barrages/headworks, says the order.

River Jhelum from Rasool headworks up to Mangla reservoir outflow, River Chenab upstream Marala headworks, River Swan from River Indus junction at Peer Pahai, Mianwali district, to foothills of Murree are also included in the prohibited areas for fishing, it says.

For fishing through rod and line, weekly and monthly angling permits will be issued with a fee of Rs500 and Rs5,000 each permit, respectively, for every district and the angling time will be from sunrise to sunset, the order says. Only five fish or total eight kilo weight, whichever is higher, per permit per day shall be allowed to be taken away, it says.

Mr Zaman says the step is inevitable in view of a serious drop in number of fish witnessed during test fishing by the department and a means to ensure conservation of the fish varieties available in the Punjab waters. He says a uniform has also been introduced for the field staff of the department as part of improving the law-enforcement capability of the staff and their easy identification by the general public during the monitoring process."

### **Punjab: Pollution impacts fish at Harike, Nangal wetlands**

<https://www.tribuneindia.com/news/punjab/pollution-impacts-fish-at-harike-nangal-wetlands-study-387775>

"Nutritional value of fish, an important source of food, found at the Harike wetland, also known as Harike Pattan, and Nangal wetland in the state, is directly affected due to rising pollution levels caused by discharge of industrial effluents into the water bodies says a latest study on the Harike and Nangal wetlands carried out by an assistant professor and a research scholar of Zoology and Environmental Sciences at Punjabi University, Patiala.

There is a significant decline in polyunsaturated fatty acids (that serve as a source of energy for human organs) and saturated fatty acids (that help lower risk of diseases upon consumption) among fish. — Onkar Singh Brraich, Assistant Professor

Impact of industrial effluents on physico-chemical parameters of water and fatty acid profile of fish, *Labeo rohita* (Hamilton), collected from the Ramsar sites of Punjab, India — published by Assistant Professor Onkar Singh Brraich and scholar Navpreet Kaur in Springer's *Environmental Science and Research Journal* discusses the water quality index (WQI) of both wetlands and the nutritional value of liver and intestine of fish found there.

The study points out that pollution level at Harike wetland is high in comparison to Nangal wetlands. The WQI of Harike wetland is poor at 56.68, while that of Nangal wetland is good (39.54) and safe for the ecosystem, it says. The Harike wetland also has a heavy load of heavy metal pollution index (HPI) and high metal index (MI) (concentration of metal).

“Discharge of unprocessed industrial effluent, agricultural run-off and domestic sewage into the

Harike wetland has become a major source of pollution. This has resulted in a significant decline in polyunsaturated fatty acids (that serve as a source of energy for human organs) and saturated fatty acids (that help lower risk of diseases upon consumption) among fish at the Harike wetland. In other words, it has deteriorated the nutritional value of fish," Brraich points out.

He says stringent legislation and guidelines should be implemented to thwart direct discharge of pollutants into natural aquatic ecosystem. Brraich said about half (48 per cent) of the fish (inedible portion), produced by the fishery industry worldwide as well as in the country, is discarded in landfills or dumped at sea as waste. "It also adds to rising pollution levels. It should rather be processed and used for its contents of bio-molecules such as lipids, protein and also to add economic value and minimise environmental pollution," he said."

### **Pakistan: Punjab University (PU) to introduce modern fish farming**

<https://krishijagran.com/news/punjab-university-to-promote-modern-methods-of-fish-farming/>

"Prof Niaz Ahmad Akhtar, Vice-Chancellor of Punjab University (PU), has stated that the university administration is promoting initiatives to introduce modern fish farming, which would aid in the growth of relevant sectors.

He was addressing a meeting of stakeholders from the fisheries and aquaculture industries convened by the PU Institute of Zoology. The meeting was attended by Pro-Vice-Chancellor Prof Dr. Saleem Mazhar, Dean Prof Dr. Javed Iqbal Qazi, ORIC Director Prof Dr. Asmatullah, and fish farmers. The meeting established a PU-Industry Fisheries & Aquaculture working group.

Prof Niaz Ahmed stated that the fisheries curriculum was being updated to meet the demands of the fish market so that graduates could easily find jobs and the industry could be provided with staff as needed. He stated that the issue of future academic research in this area should be finalized after consultation with the firms in order to make positive progress in tackling the industry's difficulties.

The working group includes more than 30 professionals from around Pakistan, including fish farmers, feed makers, industry leaders, and members of the Fisheries Department.

The Pakistan Institute of Chemical Engineers has ended a two-day international conference on Chemical Engineering (ICCE-2022). According to a press release, the UET Department of

Chemical Engineering hosted the opening ceremony and the first day of the conference, while the PU Institute of Chemical Engineering and Technology hosted the second day of the conference and the closing ceremony.

Speaking at one of the sessions, UET VC Prof Dr. Syed Mansoor Sarwar emphasized the need of doing research to solve indigenous issues and generate value-added products in order to increase the country's foreign exchange reserves."

**Punjab: Disease hits shrimp in Malwa, dashing farmers' hopes of 3rd good season in a row**

<https://www.hindustantimes.com/cities/others/disease-hits-shrimp-in-malwa-dashing-farmers-hopes-of-3rd-good-season-in-a-row-101631458703537.html>

"Bathinda With shrimp farming proving remunerative over the past two years, Jagmohan Singh of Fazilka's Arniwala village hoped for a third good season in a row this year. However, the outbreak of White Fecal Disease (WFD) in his 3-acre pond of shrimp dashed his hopes. From estimates of Rs.40 lakh turnover, Jagmohan finally ended up short of even recovering his investment of Rs.16 lakh. With shrimps showing symptoms of retarded growth rate due to WFD, a condition caused by a parasite, he had to harvest his pond in August, much before the scheduled harvesting period of September-October. "I saw an opportunity in shrimp farming in 2019 and prepared my saline and water-logging prone land, for aquaculture. Encouraged by my past experiences, this time I expanded shrimp culture to 3 acre. The shrimp, however, contracted WFD, suffered indigestion and started losing weight drastically, not suited for the market at all," he said. Farmers in Muktsar, Bathinda, Fazilka and Mansa districts are reporting similar experiences this year. In affected shrimp farms, WFS is evident with whitish fecal strings floating on to the pond surface. Experts at Ludhiana-based Guru Angad Dev Veterinary and Animal Sciences University (GADVASU) attribute the widespread infestation to poor seed quality and gaps in safety protocol.

They say the infection may spread from one farm to another through birds, unsanitised equipment or persons accessing ponds. Farmers say they had purchased shrimp seeds through middlemen and have sought the Punjab government's intervention in providing reliable seeds to overcome losses. Dr Meera D Ansal, dean, department of the Aquaculture College of Fisheries at GADVASU, said, "WFD is a common problem, but it is for the first time that farmers here have this problem on such a large scale. Shrimp is highly remunerative, but it is also high-risk crop. Farmers must follow protocol that Coastal Aquaculture Authority, a national agency, had prepared." Progressive farmers like Lakhwinder Singh from Muktsar's Ratta Khara village said farmers reared profit in 2020, but this year his crop in 8-acre farm has been almost fully destroyed. Punjab' southern districts have almost 1.5 lakh hectare affected with high salinity

levels and experts say this unproductive land can be converted into economically viable farms through aquaculture.

US and China are main importers of Indian shrimp and firms from coastal states of south India buy the crop at the farm-gate in Punjab. An experienced aquaculturist Harminder Singh from Mansa said, “Bio-safety is key to a good shrimp harvest. Farmers must ensure that entire pond area is protected against birds or stray animals and only sanitised persons enter their farm. These should work in a cooperative mode to source shrimp seeds directly from certified hatcheries in Andhra Pradesh and other places and get it tested at the GADVASU laboratory.” GADVASU’s fisheries resource management expert Prabhjeet Singh said shrimp was prone to infections and farmers should avoid overcrowding in ponds, and harvest it in a 120-day cycle. In 2017, Punjab laid emphasis on shrimp farming with the result coming in 2019, with a production of 800 tonne; last year, production dipped to 600 tonne due to lower availability of seeds, with Covid-19 restrictions in place.

### **Punjab: Fisheries Department implements fish farming projects under GoI scheme PMMSY: Bajwa**

<https://www.punjabnewsexpress.com/punjab/news/punjab-fisheries-department-implements-fish-farming-projects-under-goi-scheme-pmmsy-bajwa-145898>

"The concerted efforts of the Punjab Fisheries Department borne fruits as the Government of India’s newly launched scheme Pradhan Mantri Matsya Sampada Yojana (PMMSY) is being implemented this year in the State with a already approved project of Rs.45.82 Cr. Govt. of India has already released first installment of Center Share of Rs. 5.68 Cr under this scheme. The State Government has also made the required budget provision to implement this scheme. Disclosing this in an official communiqué, Mr. Tript Rajinder Singh Bajwa, Minister of Animal Husbandry, Fisheries and Dairy Development Department said that under this scheme Pradhan Mantri Matsya Sampada Yojana (PMMSY); Fisheries Department, Punjab has submitted DPRs for 15 more projects with total cost of Rs. 61.71 crore to GOI. The approval is expected soon. The Minister said that under this scheme, various new projects will be implemented for the development of fisheries sector in the State. Mr. Bajwa said that under this scheme, for the first time for encouraging the domestic marketing as well as to other states, vehicles for transportation of fish like cycles, motor cycles, auto rickshaws, insulated vans, refrigerated vans etc. will be provided on subsidy to the farmers in Punjab.

The increase in fish farming and shrimp farming areas will also continue this year. The shrimp farming area in southwestern Punjab has doubled to more than 800 acre compared to 400 acre last year. Department has submitted a Flagship Project on promotion of shrimp farming,

processing and marketing to GoI for which GoI has suggested a 4 year project with a total cost of Rs. 536 crore. This will help in creating jobs for the youths and improve life of the people from zero earning land areas. Animal Husbandry Minister said that the Punjab Government is promoting entrepreneurship in fisheries sector by introducing high investment projects like provision of Fish Feed Mills of different capacities on subsidy for the first time in the State. “Apart from this, latest innovative high-investment fish culture technologies like Re-circulatory Aquaculture System and Bio-Floc Culture System are being encouraged by provision of subsidy” added Mr. Bajwa.

### **India: NFDB signs pact with Punjab National Bank**

[https://www.indiaonline.com/article/news-top-story/rbi-issues-guidelines-on-opening-of-current-accounts-by-banks-121080600453\\_1.html](https://www.indiaonline.com/article/news-top-story/rbi-issues-guidelines-on-opening-of-current-accounts-by-banks-121080600453_1.html)

"National Fisheries Development Board (NFDB) under Ministry of Fisheries, Animal Husbandry & Dairying, Government of India has entered into an MoU with Punjab National Bank, the premier Bank in the country, to extend financial assistance through the Bank. The Government created the Fisheries and Aquaculture Infrastructure Development Fund (FIDF) in 2018-19 and is being implemented with a total fund size of Rs.7522.48 Crs comprising of Rs. 5266.40 crore to be raised by Nodal Lending Entities (NLE), like NABARD, NCDC & all scheduled banks. The eligible entities will be the State Governments / Union Territories, Corporations/Undertakings/Govt. Sponsored, Supported Organizations, Fisheries Cooperative Federations (including FISHCOPFED etc.), Cooperatives, Collective groups of fish farmers & fish produce groups etc. Panchayat Raj Institutions/Self Help Groups (SHGs)/ NGOs, SCs/STs/Marginal Farmers, Women & entrepreneurs, Self Help Groups, Private companies/entrepreneurs and Physically disabled.

FIDF will help in creation and modernization of Infrastructure of capture & culture fisheries Marine Aquaculture, Inland Fisheries, Reduce post-harvest losses and improve domestic marketing facilities and to bridge the resource gap and facilitate completion of ongoing infrastructure projects. So far 67 projects have been approved in the country. 14 from the individual/ private entrepreneurs under FIDF and 53 under Entrepreneur model of PMMSY scheme. Speaking on the occasion, Dr. (Smt) Suvarna, IFS Chief Executive, NFDB, said, “MoU with PNB will harness the untapped potential of Fisheries sector in tying up the individuals/Private Entrepreneurs of both FIDF and Entrepreneur Models under Pradhan Mantri Matsya Sampada Yojana (PMMSY) for availing Bank loan from PNB, pan India.” PNB has been presented with NABARD Award and adjudged as the “best public sector bank” in the country for its outstanding performance in the field of agriculture credit, microfinance, financial inclusion and technology adoption.

“PNB with 10641 branches 13781 delivery channels and 12518 Business Correspondents, 116 Loan processing centres of Retail, Agri, & MSME loans and 137 Loan processing centres for Mid Corporate Credit including MSME loans for quick-processing. These dedicated loan Centres will be collaborating with NFDB for Bank funding under FIDF & PMMSY Schemes” remarked, CH S S Mallikarjuna Rao, MD & CEO, PNB. The Zonal Office Hyderabad will be the Nodal Office for all the technically approved proposals received by NFDB across the country. MoU has been entered at Hyderabad in the presence of Dr.(Smt.) Suvarna Chandrappagari, IFS Chief Executive-NFDB, Shri. CH S S Mallikarjuna Rao, MD & CEO of PNB, Shri M Arul Bosco Prakash, Executive Director (Infra), Shri Sanjeevan Nikhar, GM & Zonal Head at PNB and Shri Rajnish Kumar, Head-Credit & Nodal Incharge of PNB Hyderabad.

### **Punjab: Dead fish in Kali Bein**

<https://www.tribuneindia.com/news/jalandhar/dead-fish-in-kali-bein-247570>

"The issue of the alarming mass deaths of fish at the Kali Bein in Sultanpur Lodhi was taken up by environmentalist Balbir Singh Seechewal at an NGT meeting. Amidst administrative apathy, fish continue to die in the Kali Bein. The number of the fish is so large that they have had to be dug out with JCB and excavators by sewadars. . The environmentalist said for years the polluted waters falling into the Kali Bein had been a cause for concern. The clean water flow is stopped every year during Baisakhi in view of repairs, but the polluted waters from the colony known as Bhalane Dian Colonial and the Kapurthala city sewage waters continue to fall into the Bein. The flow of these waters Seechewal said hasn't been stopped even after 21 years of kar sewa. He said the fish deaths indicative of serious trouble in the waters of the Bein had failed to generate a response as would have been expected ideally in such an alarming situation.

He said while government had decided to release 250 cusecs of water into the Bein, every year during repairs, this flow of water is stopped while the polluted waters continue to pour in choking thousands and millions of the aquatic organisms in the holy water body. Notably, the previous occasion such similar deaths took place were in 2012, 2013, 2015 and 2017. 2021 is the fifth year that deaths had taken place. Village takes on corona Amid a sombre Covid scenario everywhere, Kapurthala village Nangal Lubana has turned the tide of the Covid scenario. From 70% last year the village's positivity rate is down to 1%. Those coming fore to get vaccinated include 90 to 95-year-old elderly women. As many as 1,213 persons above the age of 45 years were vaccinated at the Nangal Lubana village in Kapurthala – which comprises 90.2% of those over 45 years of age. The largest village in Begowal with a population of 5,234, the village has 1,334 beneficiaries above the age of 45 years, of whom 1,213 got vaccinated. Notably, the village saw a rough 2020 where in the first wave the village saw a 70% positivity rate. Of the

835 positive cases in Bholath subdivision, 83 were from Nangal Lubana – which was 10% of the sub division. Four people from the village also lost their lives to Covid. With regular testing and vaccination the positivity rate in the village has come down to 1 per cent. Presently, none of the village residents are in hospital or home isolation. Of those vaccinated at the village include 95-year-old Kartar Kaur and 91-year-old Kartar Kaur.

### **Punjab: Hundreds of fish die in Kali Bein**

<https://www.tribuneindia.com/news/jalandhar/hundreds-of-fish-die-in-kali-bein-242359>

"Days after the water supply from the Mukerian hydel channel was snapped, hundreds of fish have died in the Kali Bein at Sultanpur Lodhi. Environmentalist Balbir Singh Seechewal said, "It is the fourth time that this is happening. The water flow from the Mukerian hydel channel was stopped on April 17. We had informed the PPCB that the pollutants from the toxic discharges into the Bein might kill the fish. While officials came to visit the spot, fresh water in the Bein was still not released. The level of the oxygen in the water has been reduced to 0.4 mg/L. Dead fish began turning up yesterday. The number is likely to rise tomorrow. The toxic discharges from the Bhalane Dian Colonial and the partially operational STP, Kapurthala, have also choked the Bein. Without fresh water, the fish die due to the toxic discharge." Even after two decades of Seechewal's kar sewa drive at the Kali Bein and numerous letters to the PPCB, council and various other departments, the dumping of pollutants at multiple points in the Bein has continued unabated. Notably, the dying of fish in the Bein ahead or after Baisakhi every year has now almost become a routine affair. This happened earlier in 2013, 2015 and 2017.

The environmentalist said the stretch near the Ber Sahib Gurdwara was the worst-affected as most of the dead fish had been found there. Seechewal said, "Every year during the repair of the Mukerian hydel channel, water is stopped for some days. As the level of toxic discharge is high, fish die." Deputy Commissioner, Kapurthala, Deepti Uppal said, "The SDM has been informed about the situation and he is reviewing it. Action will be taken accordingly." Prof SS Marwaha, Chairman, PPCB, said, "The issue was brought to the notice of the state government on Baisakhi regarding release of water into the Kali Bein. It had stopped the water due to repair work for some days. Today fresh water has been released into the Kali Bein. I have also asked a team at GADVASU to look into the cause of the deaths of the fish."

### **Punjab: GADVASU becomes first university to get PMMSY funded fisheries project**

<https://krishijagran.com/animal-husbandry/gadvasu-becomes-first-university-to-get-pmmsy-funded-fisheries-project/>

"Guru Angad Dev Veterinary and Animal Sciences University (GADVASU), Ludhiana becomes the first Indian varsity to receive fisheries development project under Pradhan Mantri Matsya Sampada Yojana (PMMSY), launched by Ministry of Fisheries, Animal Husbandry and Dairying, GOI in 2020 with an estimated budget outlay of Rs. 20,000 crores for a period of 5 years (2020-21 to 2024-25), to harness production potentials of marine & inland aquatic resources. Dr. Meera D. Ansal, Dean, College of Fisheries, informed that University will be developing a 'Capacity Building Resource Centre' under the sanctioned project with total budget of Rs. 183.85 lakh, for promoting low volume intensive aquaculture technologies like Recirculatory Aquaculture system (RAS) and Biofloc Aquaculture in the region through an integrated research, demonstration cum skill development module. The said facility will cater the much sought after training needs to set up intensive aquaculture systems in Punjab and its neighbouring states, she added.

Low volume smart aquaculture technologies like RAS, biofloc based aquaculture and aquaponics are essentially required in the modern world to develop resilience against climate change and achieve envisaged production targets, with only 10-15% land/water requirements as compared to traditional culture practices, said Dr. Inderjeet Singh, Vice Chancellor, GADVASU. He further added that the upcoming centre will be an asset for the region, offering hands on training to the stakeholders aspiring to adopt such intensive technologies in small land holdings, especially in the semi urban and urban areas. Furthermore, the university intends to receive more funding under PMMSY to provide 'State of Art' utility services to fish/shrimp farmers of the country, said Dr. Singh. Dr. J. P. S. Gill, Director of Research, GADVASU informed that the Vet Varsity? has developed a brand name at national and international levels, owing to its significant innovative R&D contributions in uplifting the livestock and fisheries sectors; and with? the present PMMSY funded project, the university will be achieving another milestone in serving the **fisheries sector**.

### **Punjab: Meeting of Innovative Fish Farmers Association held**

<https://www.tribuneindia.com/news/ludhiana/meeting-of-innovative-fish-farmers-association-held-223109>

"A meeting of Innovative Fish Farmers Association (IFFA), Punjab, was held at College of Fisheries, GADVASU, in which fish farmers from different districts of the state discussed their queries related to fish culture. With the advent of summer season, new production ponds needs to be prepared for stocking of fish and already running ponds need special care in terms of

management practices, so that fish can withstand the transition phase of winter to summer. The important tips in this regard were given by Dr Grishma Tewari, particularly regarding water quality and feeding management, so that the farmers can protect their fish from various diseases especially parasitic infestations, the chances of which get enhanced to greater extent with increasing temperature. Dr Vaneet Inder Kaur, Co-ordinator of IFFA, aware the farmers about the different schemes under “Pradhan Mantri Matsya Sampada Yojna (PMMSY)”, recently launched by Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, New Delhi with an estimated investment of Rs. 20,050 Crores for the development of Fisheries in the country in a holistic manner.

### **Pakistan: Total fish production in Punjab reaches 113,000 metric tons**

<https://www.brecorder.com/news/40045295/total-fish-production-in-punjab-reaches-113000-metric-tons>

"The area under fish farms has reached 80,000 acres of land from 70,000 acres of land during the last two years while total fish production in the province has reached 113,000 metric tons from 90,000 metric tons. To supplement these figures further, the fisheries department Punjab has already launched a project of prawns' culture over 2,500 acres of land by extending a subsidy to the farmers and promoting cage fish culture, said Punjab Fisheries and Wildlife Minister Syed Samsam Bukhari while addressing a press conference here on Monday. He said that 5,000 cage fish farms are being installed in natural waters of the province which would add 6,000 metric tons of fish production annually to the total production of the province. The Minister said that the department is also working on the installation of fish processing plants and model markets in the province to facilitate the fish farmers. He said a project of mobile laboratories has already been launched for the diagnosis of diseases in fish. Regarding the wildlife department, the Minister said that illegal use of air guns has been completely banned and a heavy fine would be levied on using them without a license. He said that four new game reserves are being set up under the wildlife department to promote formal hunting while four wildlife parks are being converted into geological parks.

### **Punjab: Govt committed to boost Blue Revolution**

<https://www.tribuneindia.com/news/jalandhar/govt-committed-to-boost-blue-revolution-175554>

"To promote the fish farming among the peasantry, the Department of Fisheries observed the World Fisheries Day. Director, fisheries, (retd) Nirmal Singh was the chief guest on the occasion. Sandeep Vashishth, Assistant Director, Fisheries, said the Fisheries Department had been making relentless efforts to promote fish farming among farmers so that they could enhance their income. He said the state government was committed to unleashing the Blue Revolution and the department was holding sensitisation camps in villages, so that more and more farmers can adopt fish farming.

### **Pakistan: Punjab govt to relocate fish market to China Scheme**

<https://tribune.com.pk/story/2261088/punjab-govt-to-relocate-fish-market-to-china-scheme>

"Punjab government has decided to build a model fish market in China Scheme. Punjab Minister for Industries and Trade Mian Aslam Iqbal has directed the local administration to relocate the existing fish market to the new site. Lahore Deputy Commissioner Danish Afzal, on Monday, highlighted that the model fish market having modern infrastructure will be built in China Scheme over an area of 47 kanals. He held a meeting with fish traders' representatives and shared the government's plan about relocation of the market. He stated that the site for construction of new fish market had been identified and following approval of the provincial cabinet and cooperation of fish traders, development work would be started on priority. An official of the Punjab Model Bazaars Management Company (PMBMC) disclosed that Lahore Development Authority (LDA) land is vacant in China Scheme and the government is planning to build a state-of-the-art fish market on the piece of land. He highlighted that it is one of the most suitable pieces of land for new fish market since it is very close to a large sewer which is the basic requirement of such markets.

Responding to a question, he said that since the land belongs to the LDA, the government has to seek a no-objection certificate (NOC) or acquire the land from the city developer. Different proposals are under consideration for development of new fish market but the main objective of the relocation is to improve market infrastructure besides addressing the chronic problem of lack of cleanliness. The government has decided to develop the model market having tiled surfaces and cold storage facilities. A couple of meetings have already been held for relocation of the fish market and the local administration has already taken different stakeholders on board to make the project sustainable. Another meeting is scheduled in which proposals will be finalised and forwarded to the cabinet for approval, an official maintained. Earlier, the industries minister directed the officials concerned for quick completion of the financial model for the new fish

market along with a comprehensive feasibility report. He also instructed the authorities to review proposals to install a chiller system in the new fish market. He further said it had been decided in principle to relocate fish market from the populated area to China Scheme.

He added, "The market will be established with latest business facilities and this relocation will be completed swiftly. He further directed officials concerned to submit the fish market relocation plan within a week and remarked that the model of Karachi's fish market should also be reviewed while preparing the relocation plan. He also instructed officials that sewerage and other problems of fish market must be solved. He also directed the authorities to make a plan for relocation truck stations out of the city. Lahore Fish Market General Secretary Rai Muhammad Akhter apprised the minister about sewerage and other problems and requested him to provide a substitute place to relocate the market. He proposed that fish traders would themselves undertake the construction work. Earlier, the minister held a meeting with Lahore Chamber of Commerce and Industry President Irfan Iqbal Sheikh and representatives of fish market and officers concerned and informed him about different proposals. Traders estimate that 150-200 tonnes of fish is traded in the provincial capital's fish market daily during the peak winter season. It is the largest freshwater fish market in the country that exports fish and its products to over a dozen countries in the European Union, Africa and the Middle East. Freshwater fish is mostly supplied to Lahore from farms in South Punjab and adjoining districts.

### **Punjab: Protect fish pond from stock loss during monsoon: Expert**

<https://www.tribuneindia.com/news/ludhiana/protect-fish-pond-from-stock-loss-during-monsoon-expert-119197>

"Management of fish ponds during monsoon mainly involves water management skills. Hence, farmers need to manage their ponds smartly to avert any unforeseen damage due to heavy rains. Dr Meera D Ansal, head, Department of Aquaculture, College of Fisheries, Guru Angad Dev Veterinary and Animal Sciences University, said firstly, farmers should assure that pond dykes were strong enough to withstand erosion during rains and this could be achieved by planting grass on the dykes. Erosion adds muddiness to water, affecting its productivity due to reduced sunlight penetration leading to oxygen depletion.

In case water becomes muddy, application of limestone in accordance to water pH is recommended. Secondly, 1 to 1½ feet free board over water surface is required to accommodate the rainwater, while an automatic overflow pipe may also be provided for maintaining desired water level during rainfall, but it is to be fixed with a mesh cover to prevent fish loss. Net fencing can also be provided to prevent escape of fish with overflow in case of high intensity rainfall. The third important thing is to keep the dykes three-four ft raised above the ground level

so that water from the catchment area does not enter the pond. It may bring lot of organic load and pesticides from the adjoining agricultural fields and pollute the water, which will affect survival and growth of fish, besides posing serious food safety concerns. Dr Meera said it was vital to ensure that pH of water did not fall below 7.0 due to rainfall, which would be detrimental for fish growth. To prevent any such condition, it is advised to sprinkle limestone on the dykes (@ 10 kg/100m<sup>2</sup>) so that it mixes with the rainwater and neutralises its acidic effects while entering into the pond. As most of the species breed during the monsoon, it is recommended that ponds should not be filled with canal water during the season. In case it is the only source of water, farmers need to fix a fine mesh net on the mouth of the inlet pipe to prevent entry of eggs and larvae of unwanted fish species (weed and predatory) along with canal water.

### **Punjab: Fish farmers told to take care of stock during summer**

<https://www.tribuneindia.com/news/ludhiana/fish-farmers-told-to-take-care-of-stock-during-summer-104195>

"To reap maximum benefits of the fish growing season in the state, extending from April to November, it is important to take care of the stock during the summer season to protect it from temperature exceeding 35°C. Communicating her views, Dr Meera D Ansal, College of Fisheries of Guru Angad Dev Veterinary & Animal Sciences University, Ludhiana, emphasised that farmers should maintain water depth of 5-6 feet in their ponds. It will provide sufficient comfortable zone to the fish below the surface layer, which gets heated up beyond optimum temperature range (28-32°C) during the summer months. Further, she said: "Oxygen is the most important issue to be addressed, which may fall to lethal levels, especially during dawn, due to enhanced biological activity in the pond.

Hence, aerate the ponds during early hours of the day before sunrise, either by adding fresh water or by aerators. High oxygen content will keep the fish healthy and increase its food converting efficiency. If disease outbreak and fish gasping air at water surface is observed, provide aeration, add fresh water and also suspend manuring and feeding to improve the water quality. Nutrient-rich pond water can be used to irrigate the paddy fields during this time and fresh water can be added in the fish ponds. It will improve water quality in the pond and reduce fertilizer requirement of the paddy crop as well. "It is important to sustain regular plankton (natural fish food) production in the pond and provide a nutritionally balanced supplementary diet, so as to achieve optimised production targets. Keep the pond rich in plankton through mixed utilisation of organic manures and inorganic fertilisers. Algae grow very fast during summers and nutrient enrichment leads to formation of algal blooms or mats. Manuring/fertilisation of pond shall be suspended in case water turns dark green, dark brown or greenish brown in colour and a green, brown or sometimes red-coloured algal mat appears on the water surface, she further said.

“Farmers also need to check day-night variation in water pH which may cross 9.5 during peak day hours and fall below 7.5 during night hours due to excessive growth of algal blooms in the pond. Regular bottom racking with the help of barbed wire is recommended to prevent accumulation of toxic gases such as ammonia and carbon dioxide in the pond. Toxicity of ammonia in fish ponds increases with increase in temperature and pH, which can be reduced by keeping the ponds well aerated and adding a dose of gypsum/alum as per expert advice, she said. “Farmers shall refrain from anticipating higher production through increased input in terms of seed, feed and manure/fertiliser. It not only enhances input cost, but also leads to crop failure due to oxygen depletion during summers, she added.

### **India: Centre to set up fisheries export hub in north India, prawn farming to be promoted in UP, Punjab, Haryana and Rajasthan**

<https://timesofindia.indiatimes.com/india/centre-to-set-up-fisheries-export-hub-in-north-india-prawn-farming-to-be-promoted-in-up-punjab-haryana-and-rajasthan/articleshow/76028846.cms>

"Seeking to double India's export earning from fisheries, the Centre will expand reach of this sector by investing in critical infrastructure and create export hub in north India especially in Punjab, Haryana, Rajasthan and Uttar Pradesh, where prawn farming can be promoted in saline water in a big way. Though the prawn farming had been introduced in Ludhiana, Jalandhar and Kapurthala districts in Punjab and Hissar district in Haryana long ago for domestic markets such as Chandigarh and Delhi, the renewed attention is expected to expand the operation on a much wider scale for export. “So far, south India was a major export hub for fishes. Now, north India too will emerge as an export hub,” said Union dairying and fisheries minister Giriraj Singh while sharing details of a central scheme - Pradhan Mantri Matsya Sampada Yojana (PMMSY) - which aims to invest Rs 20,050 crore in the fisheries sector over next five years. The PMMSY aims to enhance annual fish production to 220 lakh metric tons by 2024-25 from 137.58 lakh metric tons in 2018-19 at an average annual growth rate of about 9%. Responding to a question on impact of the current Covid-19 situation on the sector, the minister said the fish export from India might have been declined by 5-10% in current year due to demand compression in the wake of the pandemic.

“As per the latest inputs, there is not much impact on exports. There would be maximum 5-10% fall in exports,” he said, adding the shipments were affected during initial days of the nationwide lockdown, but the situation began to improve after the government exempted fishing activities from the lockdown rule from mid-April onwards. A final report on export status is, however, expected in June, said Singh. Constituting about 7.73% of the global fish production and export earnings of Rs 46,589 crores in 2018-19, India is currently the fourth largest fish

exporting nation in the world. The minister said the ambitious scheme, which aims to invest Rs 20,050 crore till 2024-25, would result in doubling export earnings to Rs 1,00,000 crore and generate about 55 lakhs direct and indirect employment opportunities in fisheries sector over a period of next five years. As part of critical infrastructural development, the scheme will also focus on developing aqua parks as hub of fisheries and aquaculture activities in the country.

Singh said the thrust of the PMMSY will be on enhancement of fish production and productivity, quality, sustainability, technology infusion, post-harvest infrastructure, modernisation and strengthening of value chain, standards and traceability in fisheries sector from 'catch to consumer', establishing a robust fisheries management framework, fishers' welfare and enhancement of fisheries export competitiveness. Estimated investment of Rs 20,050 crores under the PMMSY comprises of central share of Rs 9,407 crore, states' share of Rs 4,880 crore and beneficiaries' contribution of Rs 5,763 crore. Singh said about 42% of the total estimated investment was earmarked for creation and upgradation of fisheries infrastructure facilities. "Focus areas include fishing harbours and landing centres, post-harvest and cold chain infrastructure, fish markets and marketing infrastructure, integrated modern coastal fishing villages and development of deep-sea fishing, he said.

Besides creating critical fisheries infrastructure by attracting private investments in fisheries sector, the PMMSY plans to reduce post-harvest losses from currently 25% to about 10% by modernizing and strengthening value chain. A booklet on the scheme, released by the minister, notes that the government will register 'Sagar Mitras' (friends of ocean) in all coastal villages and encourage formation of Fish Farmers Producer Organizations (FFPOs) to help achieve the PMMSY goals. "Youth will be engaged in fisheries extension by creation of 3477 Sagar Mitras in coastal fisher villages. Large number of Fisheries Extension Services Centers will be set up in private space to create job opportunities to young professionals, said Singh. The PMMSY will also focus on several new activities and areas such as traceability, certification, accreditation and aquaculture in saline/alkaline areas. The booklet also speaks about other activities under the scheme including genetic improvement programmes, setting up nucleus breeding centres and promotional activities for fish consumption, branding, GI (geographical indication) in fish.

## **Punjab and Haryana: Centre to develop Punjab, Haryana as fish export hub**

<https://www.tribuneindia.com/news/punjab/centre-to-develop-punjab-haryana-as-fish-export-hub-90226>

"The central government is planning expand prawn farming in Punjab, Haryana, Rajasthan and west Uttar Pradesh as it plans to turn India into a major hub for exporting fish. Union Minister for Fisheries, Animal Husbandry and Dairying Giriraj Singh said that the central government was considering a proposal to introduce prawns and fish that are typically found in the sea to the saline waters of India's northern states that are usually considered the country's foodgrain bowl. "So far, south India was a major export hub for fishes. Now we are planning to make north India as an export hub. This includes almost 2.25 lakh hectares in Punjab, Haryana, Rajasthan and Uttar Pradesh where there is saline water, he said at a conference regarding new scheme Pradhan Mantri Matsya Sampada Yojana (PMMSY). "We will promote prawns and other species that can be exported. After we got (positive) results from assessments we took it up with State governments, Singh said. The PMMSY scheme aims at enhancing India's fish production to 220 lakh metric tons by 2024-25 from 137.58 lakh metric tons in 2018-19 at an average annual growth rate of about 9 per cent.

It will be "economic revolution through blue revolution Singh said adding that the country exported fish valued Rs 46,589 crore during the 2018-19 fiscal. Exports from India are expected to decline due to Covid-19 lockdown by around 5-10 per cent in 2019-20 due to demand compression. The US, Middle East, UK and China are main export destinations for fish. Asserting that there was a huge potential to increase exports in the coming years, the minister said the government also planned to promote export of seaweed and ornamental fish. Singh said the ambitious scheme will result in doubling export earnings to Rs 1,00,000 crore and generate about 55 lakh direct and indirect employment opportunities in fisheries sector over a period of next five years. The scheme envisages an estimated investment of Rs 20,050 crore comprising central share of Rs 9,407 crore, state share of Rs 4,880 crore and beneficiaries' contribution of Rs 5,763 crore. The thrust will be given towards enhancement of fish production and productivity, quality, sustainability, technology infusion, post-harvest infrastructure, modernisation and strengthening of value chain, standards and traceability in fisheries sector from 'catch to consumer', establishing a robust fisheries management framework, fishers' welfare, enhancement of fisheries export competitiveness.

The sector recorded an Average Annual Growth Rate of 10.88 per cent during 2014-15 to 2018-19, 7.53 per cent average annual growth in fish production and 9.71 per cent average annual growth in export earnings, with 18 per cent share in agricultural exports. The Gross Value Added (GVA) of Fisheries sector in the national economy during 2018-19 stood at Rs 2,12,915 crore

which constituted 1.24 per cent of the total National GVA and 7.28 per cent share of Agricultural GVA, official figures show.

### **Punjab: Seminar dwells on management practices in shrimp farming**

<https://www.tribuneindia.com/news/seminar-dwells-on-management-practices-in-shrimp-farming-51121>

"College of Fisheries, Guru Angad Dev Veterinary and Animal Sciences University (GADVASU), organised an on-site awareness on 'EHP (Enterocytozoonhepatopenaei) prevention and management in shrimp farming' in inland saline waters at Shamkhera village, district Shri Mukstar Sahib, under the All-India Coordinated Project 'National Surveillance Programme for Aquatic Animal Diseases' (NSPAAD), funded by ICAR-National Fisheries Development Board (ICAR-NFDB). As shrimp farming activity is going to start in April in Punjab, the programme was organised with the objective to create awareness about the importance of preventing EHP outbreak and following best management practices for sustainable development of shrimp farming in the state. About 40 farmers from various districts of Punjab, Haryana and Rajasthan participated in the programme. Programme coordinator Naveen Kumar recorded feedback of farmers in regards to the problems faced during the past years of culture. He updated the farmers about the status of shrimp disease reported in Punjab in past two years, with special emphasis on EHP infection. Farmers were advised to procure EHP free seed (SPF). Demonstrations were also made to apprise farmers about the methods for collecting and packing water, soil and shrimp samples for transportation to the laboratory for disease diagnosis. Farmers were advised to procure seeds from the Coastal Aquaculture Authority (CAA)-approved hatcheries only.

### **Punjab: Fish earn this farmer Rs 15 lakh per year**

<https://timesofindia.indiatimes.com/city/amritsar/punjab-fish-earn-this-farmer-rs-15-lakh-per-year/articleshow/74191861.cms>

"A farmer from Badbar village in Barnala has been able to break the wheat-paddy crop cycle by opting for fish farming in 2016 and making a profit of nearly Rs 12 lakh in 2019. Sukhpal Singh (43) established two ponds on 6.5 acres in 2016, 2.5 acres on his own land and by taking four acres on lease from the village panchayat. In another 2.5 acres of his farmland, Sukhpal grows wheat and basmati. In 2019, he earned Rs 15 lakh from fish farming in 6.5 acres. As he spent nearly Rs 3 lakh on feed, medicines and rotation of water in the two ponds, he earned a net profit of over Rs 12 lakh. Sukhpal says he earned more than Rs 10 lakh in 2017 and

2018 too. "Till four years ago, I too was into conventional wheat-paddy cultivation. But in April 2016, I took 4.5 acres of panchayat land on lease.

My own fields and the land which I took on lease were in a low-lying area, so I decided to adopt fish farming and dug up the ponds. I spent Rs 10 lakh in making the ponds and started fish farming. From the first year, I started earning more than I was making through the wheat-paddy cycle," Sukhpal told TOI. Sukhpal is not the only one who is farming fish in Barnala. There are 120 such ponds in the district spread over 500 acres. About 13,000 quintal fish is produced from these ponds in a year and farmers earn Rs. 1.5 to 2 lakh per acre per annum, according to a government estimate. On seeing the profit earned by Sukhpal, another farmer from Badbar, Daljit Singh, has decided to start fish farming on six acres after harvesting wheat. Sukhpal said he had six herbivorous varieties of fish - catla, rohu, murakh, silver carp, grass carp and common carp. "I produce 27-28 quintals of fish per acre per year. One quintal fetches over Rs 9,000," he said. Barnala deputy commissioner Tej Pratap Singh Phoolka described Sukhpal as a progressive farmer whose story had inspired others.

He said the farmer should continue to innovate. Phoolka has also visited Sukhpal's farm and fish pond several times and convinced him to go for agro-forestry too. Assistant director of fisheries Rakesh Kumar said training was being provided to farmers who wished to adopt fish farming. "A subsidy of Rs 60,000 per acre is being provided for the construction of a new pond and Rs 20,000 per acre is being provided for feed on first year. Also, a subsidy of Rs 18,000 is provided for two-paddle wheel aerator and Rs 23,000 is given for four-paddle aerator. A farmer can avail a loan of about Rs 4 lakh per hectare (Rs 1.6 lakh per acre pond) from banks," he said.

### **Pakistan: Fisheries Dept misses targets in south Punjab**

<https://www.pakistantoday.com.pk/2019/10/09/fisheries-dept-misses-targets-in-south-punjab/>

"Fisheries project development in 'saline and brackish waters' of southern Punjab by the Department of Fisheries Punjab could not achieve its stated targets despite completion of the project, whereas a high percentage of fish mortality (snakeheads/shrimps) was observed, Pakistan Today has learnt reliably. According to sources, "The project was started in August 2014 and ended in June 2018. The main objective was to conduct survey and studies of saline/brackish waters in select districts for categorization of saline water areas, keeping in view their suitability for fish culture since around 6.52 million acres land in Punjab is affected by saline and brackish waters and has marginal productivity resulting into low income for the farmer. Sources told Pakistan Today that the project was aimed to enhance productivity of such areas through culture of fish species having higher salinity tolerance.

It was also envisaged that successful implementation of the project would result in enhanced farming and aquaculture activities in saline and brackish water bodies in targeted areas with the help of studying physiochemical properties of the surface and subsoil waters with aim to get additional fish production to the tune of 300-400m tones in public and private sectors annually. Directorate General Monitoring and Evaluation (DGM&E) prepared a report over the project which revealed that only partial targets were achieved. The report observed that before launching such a project, the department should conduct trial studies on smaller scale to overcome hurdles during implementation. While giving its observations the report states, “The project was approved without proper projection of RBM Indicators (Result Based Management) to assess the efficiency, sustainability and status of farming at pre and post project stage. The project was revised three times but the physical activities and expected financial gains of project interventions were not projected in PC-I. The project is deficient of FCR (Feed Conversion Ratio) values and economical model, carrying technical aspects. There is also absence of relevant data/literature/trials regarding introduction of alien species into local environment without any prior studies on smaller scale. The fish seed production/rearing facilities were generated under the scheme but their targets were not projected in the PC-I. Three project directors were changed during project execution stages.

The report further states, “A high percentage of mortality of fish (Snakehead)/shrimps was observed in the project which should not be overlooked. No investigative research/report on mortality of prawns/shrimp/fish was carried out. Department reported that an amount of Rs1.918 million was generated through sale of fish but there are also fluctuations. There is great heterogeneity in the saline lands/waters viz saline, saline-sodic, sodic and normal. It was planned to categorize the saline waters on the basis of tests viz dissolved oxygen, total alkalinity, hardness, pH, TDS, CO<sub>2</sub> etc of targeted districts and their classification for suitability of different fish species but the requisite compilation is lacking. Fish farming area in targeted districts especially Muzaffargarh showed an upward trend. The report recommends, “Before launching such projects, the department should conduct trial/experimental studies in tanks, aquariums or small ponds to assess the survival/mortality/morbidity rate and its impact on environment, rather than conducting trials directly into ponds. Department should focus on provision of qualified technical assistance to farmers at their door steps. “Effective plans should be formulated by the department to provide training to farmers which should include efficient economic role models and usage of modern techniques to trigger the aquaculture practices. The department should also consider on spot/farm workshops for dissemination of technology in addition to indoor workshops.

Efficient record keeping is an important tool to identify the progress and problems in the project for further planning and development of similar projects. Assistant Director Fisheries

Department Mushtaq Qureshi rejected the report and said, “All documents and data were provided to the DGME. Adding, “The project is functioning without any hurdle.

## **Punjab: 6 tonne fish found dead in 2 Fazilka villages, samples sent to GADVASU**

<https://www.hindustantimes.com/chandigarh/6-tonne-fish-found-dead-in-2-fazilka-villages-samples-sent-to-gadvasu/story-quemS7813tFw3pFOxrbH7H.html>

Around six tonne of fish were found dead at two villages in Fazilka district over the last weekend, reportedly due to water contamination following discharge of untreated sewage into water bodies. Residents of Ghadumi and Afsar Wala, villages located near the Pakistan border, said dead fish were found floating in the water and scattered on the river banks on Sunday. Satpal Singh of Ghadumi said authorities had been alerted. “Both the villages are located near the Sabuana drain where untreated sewage from Bathinda and Muktsar districts flows into villages of Fazilka district. Seepage from this drain has also contaminated groundwater in the adjoining area. A complaint about water contamination in Fazilka is already under the purview of the National Green Tribunal,” he said. Deputy director fisheries Rajeshwar Kumar said the drain containing municipal waste could have caused severe depletion of oxygen in the water bodies leading fish death. He said the fish multiplied in water accumulated from recent rains and the overflowing drain in the low-lying areas.

“Samples of the dead fish and water from ponds have been sent to the Ludhiana-based Guru Angad Dev Veterinary and Animal Sciences University to ascertain the cause of mortality,” he said. Meera Ansal, head of the department of college of fisheries, Guru Angad Dev Veterinary and Animal Sciences University (GADVASU), said: “Several factors may be responsible for the fish mortality, including water contamination. But to figure out the cause and to suggest remedial steps, we need to conduct a detailed study.” Villagers have been complaining of poor quality water being drawn from handpumps at Kadar Baksah, Pucca Chisti, Beri Wala and other villages. A team of Punjab Pollution Control Board (PPCB) has started collecting water samples from the Fazilka district. An official said a detailed report on the quality of water will be submitted to the NGT by August 25.

## **Punjab: Fish found dead in drain, locals blame cement plant**

<https://www.tribuneindia.com/news/punjab/fish-found-dead-in-drain-locals-blame-cement-plant/753312.html>

A large number of fish were today found dead in Ghanuali drain allegedly due to discharge of some poisonous effluent in it. The drain, which passes through Ambuja cement factory, merges with the Sutlej. While residents of surrounding villages alleged that the factory discharged its effluent into the drain, which led to the death of fish, the plant management claimed that their factory did not produce any effluent. Chak Dheran village sarpanch Mukesh Singh said they noticed the dead fish floating in the drain this morning. They alleged that some chemical was

discharged in the drain by the cement plant. Officials of the fisheries and pollution control departments reached the spot and took samples of the fish and water. They said the cause of water contamination would be known only after the testing samples. Ambuja cement plant general manager Rajiv Jain said the plant was set up on land leased out by Guru Gobind Singh Super Thermal Plant. "The water discharged from the power plant and adjoining villages is discharged in the Sutlej through this drain," he said, adding that the plant did produce any effluent. Thermal plant chief engineer Randhir Singh Bains said the plant was lying idle since December, so they could not be held responsible for the fish deaths.

### **Punjab: Workshop held on shrimp farming practices, prevailing diseases**

<https://www.tribuneindia.com/news/ludhiana/workshop-held-on-shrimp-farming-practices-prevailing-diseases/752081.html>

A one-day training-cum-awareness programme on "Importance of aquatic animal disease surveillance in aquaculture environment" was organized at College of Fisheries, Guru Angad Dev Veterinary and Animal Sciences University (GADVASU), under the Indian Council of Agricultural Research and National Fisheries Development Board (ICAR-NFDB) funded project on "National surveillance on aquatic animal disease". Dr HK Verma, Director of Extension Education and Dr KS Sandhu, Dean, College of Fisheries, inaugurated the training programme. A total of 24 progressive and potential farmers from different districts of Punjab participated in the event. One of the fundamental mandates of the training was to create awareness about shrimp farming practices, current prevailing diseases and prevention protocols. Dr Verma addressed the farmers and highlighted the utilisation of inland saline and water logged areas of Punjab and motivated them to take the benefit of the land. Dr Sandhu told about the importance of surveillance, data management and interpretation data for sustainable production. He conveyed farmers to utilise the GADVASU facilities for field related problems, especially disease diagnosis. Dr Meera D Ansal, Head of Aquaculture Department, highlighted the scope of shrimp farming in Punjab. Dr Naveen Kumar BT, Course director of the training programme explained the source of specific pathogen free (SPF) seed, role of the Coastal Aquaculture Authority (CAA) and Rajiv Gandhi Centre for Aquaculture (RGCA), and the importance of disease surveillance in shrimp farming in India.

Dr Prabjeet Singh and Dr Anuj Tyagi interacted with farmers about site selection, farm design, biosecurity measures and best management practices for sustainable shrimp farming. Dr Shanthanagouda and Dr Amit Mandal discussed about feed management and biofloc technology to increase and double the farmers' income. Farmers and faculty members of the College interacted and shared the aspects related to shrimp farming activities, current and new technologies of farming in India, which help developing the confidence among the farmers. In the afternoon session, farmers were exposed to onsite and point of care disease diagnostic tool (farmer-level kit) for quick detection of shrimp pathogens, and they were also demonstrated the

shipment of shrimp samples for disease diagnosis in the laboratory. College of Fisheries has been organising specialised training programmes of variable duration as an entrepreneurship option for unemployed youth. In addition, the trend of aquaculture in Punjab has shown a positive sign which would potentially help in a Blue Revolution. The event concluded with vote of thanks and saying fish for health and wealth by Dr Anuj Tyagi.

### **Punjab: Blue revolution: First fish feed mill opens in Rajasansi**

<https://www.tribuneindia.com/news/punjab/blue-revolution-first-fish-feed-mill-opens-in-rajasansi/727491.html>

With a view to promote the Blue Revolution, the state government opened its first fish feed mill at Government Fish Seed Farm in Rajasansi on Monday. Besides, a skill development programme has been launched here to exhort farmers/youth to go for allied occupations. Minister of Animal Husbandry, Dairy Development, Fisheries and Labour Balbir Singh Sidhu said allied occupations like fish, pig and goat farming would help in dealing with unemployment and agrarian crisis. He said the government had announced a subsidy of 40 per cent to set up a fresh fish pond and told farmers to market their produce themselves. While distributing subsidy cheques to such aspirants, he said Punjab had been contributing at least 13 per cent of animal husbandry services in the country. In 2017-18, the production of fish was 1,36,638 tonnes in the state.

### **Punjab: To set up committee to give boost to dairy, animal husbandry, fisheries schemes**

<https://www.devdiscourse.com/article/business/369114-punjab-to-set-up-committee-to-give-boost-to-dairy-animal-husbandry-fisheries-schemes>

Punjab Chief Minister Amarinder Singh Tuesday announced setting up a high-powered committee to boost the dairy sector for supplementing farmers' income in a result-oriented manner. During a meeting to review the progress of various development projects and schemes related to animal husbandry, dairy and fisheries, the chief minister asked the additional chief secretary of animal husbandry department to complete the formalities for setting up the committee, an official statement said. The committee will consist of the Chairman of the State Farmers Commission, Director Animal Husbandry, Director of Dairy Development and a representative of Guru Angad Dev Veterinary and Animal Sciences University (GADVASU). It will suggest measures to promote diversification of agriculture with an aim of enhancing farmers' income from allied sources, the statement said.

Amarinder asked the chairman of the State Farmers Commission, Ajay Vir Jakhar, to engage the services of Israeli dairy farming expert Yehuda Sprecher, who was here to attend the meeting as an advisor to the animal husbandry department. Underlining the need to augment farmers' income to make agriculture viable again, the chief minister said monetary output from traditional

cropping pattern has already reached a saturation point, and alternative avenues of agricultural growth need to be explored and sustained. He stressed on the need to motivate farmers to switch to allied farming for economic viability.

### **Punjab: Ban imposed on sale of Magur fish**

<https://timesofindia.indiatimes.com/city/chandigarh/ban-imposed-on-sale-of-magur-fish/articleshow/67262124.cms>

Police commissioner Sukhchain Singh Gill has banned the sale and breeding of Magur fish (or 'mangoor') in all areas falling under the jurisdiction of the Ludhiana police commissionerate. As per the ban order issued under Section 144 of the CrPC, for meagre financial gains some anti-social elements have been smuggling Magur fish, which is harmful for health, from other countries. This type of fish preys on its own breed posing a major health risk for humans and animals. If this specie mixes with our natural waters, it can be harmful to insects and other fish. Through another order, the commissioner has imposed a ban on hookah bars operating in the city. Gill said it has come to his notice that some hookah parlours are operating illegally in the city and they are causing serious harm to the residents as hookahs contain tobacco, harmful chemicals etc.

Keeping in view the health of the city residents, operating hookah bars in the city has been prohibited. Moreover, Gill has also released an order banning use of loudspeakers from 10pm to 6am in all the areas falling under the jurisdiction of the police commissionerate. The commissioner, while exercising his powers under Section 144 of the CrPC, has said that no person would be allowed to play loudspeakers on high volume from 10pm to 6am. The order stated that when playing loudspeakers on high volume causes noise pollution and affects the common man, animals, birds, sick people etc. Gill said that if someone's wants to organize a programme in this period, permission from the concerned authorities would have to be obtained. For about two months, the assembly of five or more persons, carrying of arms and ammunition and flammable materials has been prohibited in the city.

### **Punjab: Fish need special care during winter season, says expert**

<https://www.tribuneindia.com/news/ludhiana/fish-need-special-care-during-winter-season-says-expert/703723.html>

Speaking at an event on fish care during winters, Dr Meera D Ansal, College of Fisheries, Guru Angad Dev Veterinary and Animal Sciences University (GADVASU) said fish, being a cold blooded aquatic animal, needs special care during winters. As temperature of the surface water is colder than the bottom layers, the fish prefers to live in the bottom zone. Farmers shall keep the water depth up to 6 feet, so that it gets enough space for hibernating in the warmer bottom zone. In shallow waters, the whole water column becomes cold, which affects the fish and can prove

fatal. “As day length and light intensity also decreases during winters, oxygen levels decline in ponds due to reduced photosynthetic activity. The situation further aggravates during continuous cloudy days. The farmers are advised to aerate their ponds either by adding fresh water or by using aerators, especially during early hours of the day,” said Dr Ansal. Feed intake of fish decreases with decrease in temperature as its digestive system becomes sluggish.

Hence, it is essential to reduce the feeding rate by 50-75% depending on the temperature. In case the temperature falls below 50 degrees, it is advised to stop feeding. Excess feed remains unconsumed and accumulates at the pond bottom, which deteriorates the water quality. Farmers are further advised to use low protein diets. It is also necessary to reduce/stop adding organic manures such as cow dung, poultry droppings, and pig dung in the pond as rate of decomposition of organic manures declines due to poor microbial activity during winters. It is also advised to go for periodic raking of bottom soil (with the help of barbed wire) to prevent any suspected accumulation of toxic gases at the pond bottom,” said the experts. During winters, various fungal, bacterial and parasitic diseases like fin rot, gill rot, EUS and argulosis may appear in the fish. Treat the pond with CIFAX @ 400 ml/acre just before the onset of winters. Also treat the pond with potassium permanganate @ 1-2 kg/acre or limestone @ 50-100 kg/acre. Salt application @ 100 kg/acre also helps in protecting fish against disease outbreak during winters, added Dr Ansal.

### **Punjab and Himachal Pradesh: Rains, floods pound North India; Punjab, Himachal Pradesh suffer the brunt**

<https://www.indiatoday.in/india/story/rains-floods-punjab-haryana-jammu-kashmir-delhi-north-india-1349114-2018-09-25>

Heavy rainfall in Himachal Pradesh, Punjab and Jammu and Kashmir disrupted life in the states. Incessant rain triggered flash floods and landslides in hill states of northern India, with at least 11 people killed on 24 September in Jammu and Kashmir, Himachal Pradesh and Haryana. Punjab Thundershowers with gusty winds knocked on Punjab's door on September 23. Torrential rainfall caused massive damage to public property in Punjab. The Sukhna river also crossed the danger mark. A red alert was issued in Punjab on September 24 due to heavy rainfall. Punjab CM Captain Amarinder Singh ordered closing down of schools and colleges on September 25. The chief minister also asked the Army to be on alert to help Punjab deal with any eventuality coming out of the situation, according to an IANS report. The water level at the Bhakra Nangal Dam reached 1,655 metre as against the capacity of 1,680 metre. A warning was issued for villages near Ravi, Beas and Satluj rivers. On September 24, water in Chandigarh's Sukhna Lake crossed the danger mark which compelled the administration to open two spill gates. The floodgates were opened after 10 years after the lake crossed the danger mark of 1,162 feet. Ferozepur Railway Division cancelled trains and many were also diverted.

Heavy rains led to landslides which blocked the roads to Badrinath, Kedarnath and Yamunotri, affecting the Chardham Yatra, while traffic snarled in the national capital due to waterlogging following heavy rains. Incessant rains in Punjab and Haryana could cause damage to kharif crops and dip in their yield, farm experts said. Farmers in Punjab and Haryana demanded adequate compensation for crop damaged by rains. Himachal Pradesh Heavy rains in Himachal Pradesh on September 24 claimed eight lives and hundreds, including school students, were stranded in the state as incessant rainfall for the third straight day triggered landslides and snapped over 200 road links. The Chandigarh-Manali highway beyond Mandi town and the Pathankot-Chamba highway were hit. Manali, Chamba and Dalhousie towns were cut off from rest of the state. Three people were washed away near Manali on September 23 when their vehicle fell into the swollen Beas river.

Elsewhere, two people were washed away in the Parbati river in the Manikaran valley while one girl died near Bajaura. Both incidents occurred in Kullu, one of the worst affected districts by flash floods. A man was drowned in a swollen rivulet near Palampur town in Kangra district, while another was killed when a factory building was washed away in a rivulet in Una district. In Chamba district, around 1,000 school students have been moved to safer places in Holi area of Chamba. They had gathered for the 23rd District Primary School Sports Tournament. After three consecutive days of incessant rains, over 200 roads in the state's interiors remained closed to traffic, stranding travellers and commuters. The highway which connects Manali with Leh in Jammu and Kashmir has been closed for traffic owing to heavy snow since September 22. As a precaution, the government has announced closure of all educational institutions in Chamba, Kullu, Sirmour, Kangra, Kullu and Hamirpur districts till September 25. According to an IANS report, incessant rains could aggravate the flood-like situation in Punjab and Haryana. All the major rivers of Himachal Pradesh -- the Satluj, Beas and Yamuna -- enter Punjab and Haryana.

The Cabinet was on Monday informed that 120 persons were rescued from Koksar in Lahaul-Spiti district. They included 12 Sikkim tourists. Thirty-three were rescued from Phojal in Kullu. A majority of them were rescued by the Indian Air Force. Three bridges were washed away in Kullu and Manali towns. Nineteen were rescued by Indian Air Force (IAF) in Himachal Pradesh. An IAF chopper rescued 19 people on Saturday in the state as they were stuck in a flash flood triggered by continuous heavy rain. On the direction of Chief Minister Jai Ram Thakur, the chopper from the Indian Air Force was requisitioned to rescue the stranded people at Dobi in Kullu district, a government spokesperson told IANS. He said all of them were rescued safely. The southwest monsoon remained aggressive in the state with most of the areas experiencing heavy to extremely heavy rains, causing landslides in some areas and blocking the highways. All the major rivers and their tributaries were in spate, officials said.

**Chandigarh: Fish seeds farms rejuvenated investing Rs 24.65 crore: Balbir Singh Sidhu**

<http://punjabnewsexpress.com/punjab/news/fish-seeds-farms-rejuvenated-investing-rs-2465-crore-balbir-singh-sidhu-78992.aspx>

To lend much needed helping hand to the farmers associated with the fish farming, the State Government has resuscitated the various 'Fish Seed Farms' with the cost of Rs. 24.65 crore. Disclosing this, Mr. Balbir Singh Sidhu Animal Husbandry, Dairy Development & Fisheries Minister said that the motive behind this exercise is to encourage the farmers to opt for fish farming under the agricultural diversification programme of Congress Government. He said that the initiative of the Government in this direction has borne fruits as 3449.23 acres of additional area has been brought under fish farming in the year 2017-18 whereas 35882.49 acres of existing area under fish farming is remained intact. The Minister said that with the proactive efforts of the fishery department, 137309 tonne of fish was produced in the state in year 2017-18. He said that with this achievement the state has now emerged as one of the leading states of India in the field of fish farming. He said that a state of the art 'Fish Brood Bank' would soon be established in the state to produce high quality fish seed with scientific techniques.

Similarly a new Government Fish Seed Farm is also being established at village Alisher Khurd in District Mansa. He said that the farmers of Punjab are so enthusiastic to adopt fish farming, so the Government has been conducting training session throughout the year across the State to train the farmers on the scientific techniques of fish farming. He said that 6324 persons have been imparted training in year 2017-18 and Fishery department helped the farmers to get loans worth Rs. 4,51 crore from banks. Mr. Balbir Singh Sidhu further said that 5 'State of the Art Laboratories' are being set up in the state to diagnose diseases and maintain quality of water in the fish ponds so that fish farming can be progressed on scientific lines.

### **Pakistan: LHC grants stay order against auction of fresh water fishing lease in Punjab**

<https://www.pakistantoday.com.pk/2018/08/19/lhc-grants-stay-order-against-auction-of-fresh-water-fishing-lease-in-punjab/>

The Lahore High Court (LHC) last week granted a stay order against the auction of fishing rights in Punjab's rivers and freshwater reservoirs. The petition was submitted on behalf of three petitioners including Khadim Hussain, a member of Sindhu Bachao Tarla (Save the Indus Plea) by Advocate Syed Ghazenfur Shah. The petition argues that the Punjab Fisheries Department's decision to auction freshwater fishing rights to contractors has forced traditional fisher communities in Punjab to go into debt bondage. Advocate Shah argued that the current lease system of fishing prevailing on approximately 350 water bodies in Punjab has led to the economic and social destitution of the fishers. He explained that the lease system auctions off public waters to private individuals who then exercise a monopoly to fish on these waters which include rivers, ponds and lakes. This deprives the traditional fisher communities from their right to fish freely, forcing them instead to sell their catch to the leaseholders at paltry rates.

Leaseholders extract extraordinary economic gains by exploiting the skill and labour of the fishers while providing minimum revenue to the public exchequer.

The petition put forward had requested the court to strike down the lease system on the grounds that it was in contravention to the Bonded Labour (Abolition) Act 1992. It also requested that the court recognise the rights of these traditional communities to fish and their key role in protecting the fragile river ecosystem. Justice Shams Mehmood Mirza granted a stay order on the auction and directed the Punjab Fisheries Department to respond to the petitioner's claims. The next hearing has been scheduled for October 11. The lease system was abolished in Sindh by the provincial government due to overwhelming evidence of its devastating impact on fisher communities. Petitioner Khadim Hussain said that in addition to the exploitation of the fisher communities, leaseholders often force fishers to overfish and employ other environmentally harmful practices. He further said that numerous complaints have been made to the Fisheries Director General (DG) and other government departments, but to no avail, often resulting in violence against fishers by the leaseholders. He said that numerous studies the world over have linked robust community-based rights for small fishers to sustainable fishing and protection of biodiversity.

### **Punjab: Your fish embalmed with chemical used for corpses**

<https://www.tribuneindia.com/news/nation/your-fish-embalmed-with-chemical-used-for-corpse/631416.html>

Ever thought what keeps sea fish fresh? It is formalin, a chemical used for preserving corpses in mortuaries. An investigation carried out by The Tribune has found large presence of the chemical in fish, sold in Chandigarh and Punjab. At least 10 varieties of sea fish are consumed in the region. The Tribune team purchased some popular varieties at one of the region's biggest fish markets in Chandigarh's Sector 21 and got these tested at the Punjab Food and Chemical Testing Laboratory in Kharar. Formalin was found in two most commonly consumed varieties — Mackerel and Red Snapper. The test report, prepared by the Food Analyst Punjab, stated that in Mackerel a large amount of the chemical was found. In Red Snapper, traces of formalin were observed. A query with the Punjab Health Department reveals it is not for the first time that formalin has been found in fish in the region. In 2013, four samples were taken by the Civil Surgeon, Patiala, from the city's fish market and a huge amount of formalin was found in all four. Health experts say formalin, a derivative of formaldehyde, is a dangerous chemical and its consumption is linked to cancer.

Dr Onkar Singh Baraich, Assistant Professor (Fish and Fisheries), Punjabi University, Patiala, said the chemical was so strong that a solution of 5 per cent formalin and 95 per cent water could preserve fish for 100 years. "The moment it comes in contact with a living organism, it arrests it, which helps stop the organism decay," he explained. Formalin can cause severe stomach

ailments, disturbing enzymes and paralysing the digestive system. Any food laced with the chemical loses its nutritional value. “Formalin-laced food cannot be digested, it goes with faeces as it is.” Both Mackerel and Red Snapper, that come from Mumbai, are widely consumed in the region. Transported by train, these reach Chandigarh and Punjab on the third or fourth day. Retailers and wholesalers deny any chemical is used for preservation locally. “We receive consignments in thermocol boxes from Mumbai. We place the fish on ice and sell or supply within two days,” claims the owner of Ashoka Fish Merchant in Chandigarh. Punjab officials say most of the fish sold in the state is of varieties found in local rivers. “Formalin may be used in sea fish, but not in local varieties, that are consumed within 24 hours and need only ice to prevent rotting,” says Dr Madan Mohan, Director Fisheries, Punjab.

Sukhwinder Singh, Designated Officer, Department of Food Safety and Standards, Chandigarh Administration, did not respond to repeated calls. Supply route Sea fish sourced from Gujarat, Odisha, Maharashtra, Andhra Pradesh and West Bengal arrives at Gazipur hub in East Delhi. It is further supplied to parts of North India, including Chandigarh. Deadly formalin It is a strong disinfectant and tissue hardener. It is used for preserving biological and anatomical specimens. It is also used to sterilise surgical instruments Mackerel & Red Snapper Mackerel is known by different names in different languages and regions like aiyla in Malayalam, bangdi in Gujarati and bangda in Marathi. It is widely found in the western coastal belt. Red Snapper is commonly found in Kerala. May Affect... Respiratory tract Lungs Liver Kidney Can Cause... Allergies Bronchitis Pneumonia Cancer Consuming 30 ml of formalin — a solution made of water, menthol and 37% formaldehyde — can kill an adult

### **India: Heat wave will continue in Rajasthan, Punjab, Haryana, Madhya Pradesh, Delhi: IMD**

<http://zeenews.india.com/india/heat-wave-to-continue-in-rajasthan-punjab-haryana-madhya-pradesh-delhi-imd-2111643.html>

The India Meteorological Department (IMD) has warned of heat wave conditions in North India, including Rajasthan, Haryana, Punjab and Delhi in the coming days. On Saturday, the maximum temperature in Narnaul town in Haryana was 46 degrees, while Patiala city in neighbouring Punjab was hot at 45 degrees. Hisar (45.7), Bhiwani (45.6) and Karnal and Ambala (both 44 degrees) had also seen an intensified heat wave and Chandigarh had recorded a high of 43.6 degrees on Saturday. Amritsar city in Punjab had recorded a high of 43.6 degrees, while Ludhiana was hotter at 44.6 degrees. In Delhi, on Saturday, the mercury had risen to 45 degrees celsius, which was five notches above normal for the season. IMD warning for 27 May (issued 2 pm): - Heat wave conditions are very likely to occur at most parts of west Rajasthan, some parts of east Rajasthan, Haryana, Chandigarh, Delhi, Vidarbha, west Madhya Pradesh and at one or two pockets over Punjab, Uttar Pradesh, west Madhya Pradesh, Saurashtra and Kutch. - Heavy to very heavy rain at a few places over Lakshadweep and at isolated places over Kerala, sub-

-Himalayan West Bengal and Sikkim, Assam and Meghalaya and Andaman and Nicobar Islands. Heavy rain very likely at isolated places over coastal Karnataka, south interior Karnataka, Tamil Nadu and Arunachal Pradesh. - Thunderstorm accompanied with gusty winds very likely at isolated places over GWB, Odisha, Jharkhand, Bihar, east MP, south Konkan and Goa, Vidarbha, Chhattisgarh, Telangana, Tamilnadu and interior Karnataka. Duststorm/thunderstorm very likely at isolated places over Punjab, Haryana, Delhi and UP. - High wave in the range of 3.0-3.6 meters are likely along the coast of Lakshadweep Islands and Kerala.

Squally wind speed reaching 40-50 Kmph gusting to 60 kmph very likely along and off Kerala and Karnataka coasts, over and around Lakshadweep area and Andaman and Nicobar Islands. - Fishermen are advised not to venture into the sea along and off Kerala and Karnataka coasts and over and around Lakshadweep and Andaman and Nicobar Islands. IMD warning for May 28: - Heat wave conditions are very likely to occur at many parts of west Rajasthan, some parts of east Rajasthan and at one or two pockets over Himachal Pradesh, Punjab, Haryana, Chandigarh, Delhi, Madhya Pradesh, Saurashtra, Kutch and Vidarbha. - Heavy to very heavy rain at a few places over Lakshadweep and at isolated places over Kerala, heavy rain very likely at isolated places over coastal Karnataka, south interior Karnataka, sub--Himalayan West Bengal, Sikkim, Assam, Meghalaya and Andaman and Nicobar Islands. - Thunderstorm accompanied with gusty winds very likely at isolated places over UP, UK, gangetic West Bengal, Odisha, Jharkhand, Bihar, south Konkan, Goa, Chhattisgarh, Tamil Nadu and interior Karnataka. Duststorm very likely at isolated places over east Rajasthan. - Squally wind speed reaching 40-50 kmph gusting to 60 kmph very likely along and off Kerala and Karnataka coasts, over and around Lakshadweep area and Andaman and Nicobar Islands. - Fishermen are advised not to venture into the sea along and off Kerala and Karnataka coasts and over and around Lakshadweep and Andaman and Nicobar Islands.

### **Punjab: Aftermath of contamination: Plans afoot to ban fishing in Beas for 2 years**

<https://www.hindustantimes.com/punjab/aftermath-of-contamination-plans-afoot-to-ban-fishing-in-beas-for-2-years/story-iVXRR46NJMEHt8gml22IbL.html>

Days after Punjab's biggest ecological disaster took place in the Beas due to the discharge of molasses from a Gurdaspur sugar mill, the state's department of fisheries has proposed to impose a complete ban on fishing in the river for two years. Also, the department has proposed to release seeds of fish varieties in the Beas that were once found in it from other water bodies as part of its revival plan for the river's ecosystem. "We have sent the proposal to our head office to ban fishing in the river. Now, it is up to the government to take final call on this," department of fisheries assistant director Raj Kumar said. Officials of the forest and wildlife department also supported the revival proposal of the department of fisheries. Kuldeep Kumar, principal chief conservator of forests, department of forest and wildlife, said, "We are still assessing the loss caused by the disaster. We can only chalk out the revival plan for the next stage." "Ban on

fishing should be the top priority. Secondly, the river should not be subjected to any kind of disturbance or interference. All the departments, including the police, should cooperate in achieving this. Besides, proper and consistent flow of water from the dams is also necessary for the revival,” said an official, who did not want to be quoted as he is not authorised to talk to the media.

The river’s ecosystem was heavily damaged due to the spill as it not only endangered the varieties of fish, but also broke the food chain, thereby affecting other species in the river and migratory birds that visit the Harike wetland during winter season every year. Raj Kumar said they have sent the proposal to release seeds of now-extinct varieties to the department head office. He said they have proposed two ways out to revive the river’s ecology. “Since the monsoon season, which is the breeding period for fish, is upcoming, we have proposed to bring the seeds of now-extinct varieties (in Beas) from other sources to release them at different points of the river,” he said, adding, “Some varieties are available in Punjab and can easily be reintroduced in the river, while rest of the varieties will have to be brought from coastal states such as Andhra Pradesh, West Bengal and Orissa.” The now-extinct fish varieties include the common carp, Indian rohu, catla, mrigal, catfish, singari, gosh, bam, chital, bata and sol. “The Indian Rahu, catla and common carp among others are available in government-owned fish seed farms in Punjab. Such a farm is also there at Rajasansi village from where the fish seed can be brought to the river,” he said. Dead fish disposed of The two departments have disposed of the fish that died in the wake of the sugar mill spill by burying them in pits near the banks of the river, it has been learnt. Kumar said they carried out the drive on May 17 and 18 to dispose of the dead fish as it was necessary to prevent further deterioration of the river ecology. “We applied a chemical substance on the dead fish before dumping them,” he said.

### **Punjab: State to set up Rs 7-cr fish seed farm in Mansa**

<http://www.tribuneindia.com/mobi/news/bathinda/state-to-set-up-rs-7-cr-fish-seed-farm-in-mansa/594515.html>

With a view to giving a boost to fishery in this border district, the Punjab Government will soon start a fish-seed farm to help fish farmers in getting quality fish seed. The firm, to cost Rs 7 crore, is being set up at Alisher Khurd village in Bhikhi block. The process of setting up the farm is in full swing and it would start functioning within the next two months. Divulging more details about the project, Mansa ADC (development) Gurmeet Sidhu said the farm would prove to be a blessing in disguise for those farmers who were planning to set up fish ponds in Mansa district. He said this would be the 15th fish-seed farm in the state, which would help farmers in getting high quality fish seed. More and more farmers of Mansa are getting attracted towards fish farming as 10 ponds were set up by farmers across this district last year. He said the farmers whose agricultural land had saline water or arid soil could opt for fish farming and the Punjab Government is helping them in every possible manner.

“Apart from providing seed of the approved fish varieties, the government would also set up a fish farming training centre within the premises of this seed-farm where farmers could learn modern ways of fish farming for free. The centre would be equipped with a soil and water testing laboratory,” Sidhu said. He pointed out that once the farm was set up, farmers of the area need not to go anywhere else as they would be able to get everything related with fish-farming under one roof. Spread in an area of over 12 acres and 2 kanal, the farm would be opened to farmers soon as it was now near completion. At present, there are 36 private ponds in Mansa district with a total area of 107 acres under fish farming. Around 2,067 acres of panchayati land in villages of Mansa district too is under fish farming where village ponds are taken on contract. The per hectare production of fish in Mansa is 7 tonne every year and the fish produced is sold in the market of Ludhiana.

### **Pakistan: In polluted Punjab river, the miracle and mystery of dolphins surviving mass death**

<https://www.hindustantimes.com/environment/in-polluted-punjab-river-the-miracle-and-mystery-of-dolphins-surviving-mass-death/story-OkHAE5VuUFlhEruLWkZKJJ.html>

Villagers living downstream along the Beas river from Kiri Afgana village in Punjab’s Gurdaspur district woke up on May 17 to a sight they had never seen before. Thousands of fish of all sizes were turning dead up along the river banks. The villagers immediately took the fish and put them in buckets and tubs of water, local forest department official Karm Singh said. The locals knew from experience that the fish could be revived if released back into water even after half an hour out of the river. They hoped that the river water that had turned a dark rusty colour overnight and stank of alcohol would flow away allowing them to return the fish to the river. They waited but the water cleared only after two days. A chemical reaction inside the molasses storage tank of a sugar mill owned by Chadha Sugar Industries Private Limited at Kiri Afgana released thousands of litres of molasses into the main stem of the Beas late on May 16. Among the creatures that were affected were the Indus river dolphin, one of the India’s rarest mammals. The Indus river dolphin (*Platanista gangetica ssp minor*) is a subspecies of the South Asian River Dolphin, which includes the Gangetic river dolphin.

Both the subspecies are threatened and protected under Schedule I of India’s Wildlife Protection Act, 1972. A WWF team and forest department officials had been tracking the precarious return of the Indus River dolphins to the Beas about a decade ago after they were believed to have become locally extinct. Their return to the Beas was reported and confirmed in 2007 but their population was less than a dozen. A small isolated population like this is at greater risk of local extinction, according to experts. When Gitanjali Kanwar heard the news of the leak her heart sank. “The immediate effect was plunging pH levels, turning the water acidic and the loss of dissolved oxygen,” Kanwar, a WWF India field researcher who has studied this riverine system for close to a decade, said. The WWF team had announced earlier in May that a healthy

population of about five to eleven dolphins inhabited the stretch of the river between Pong dam in Himachal Pradesh and Harike barrage in Punjab. During the survey held between May 3 and 6, the presence of a calf suggesting a breeding population was big news. But the ugly disaster threatened to wipe the Indus river dolphins off the face of India. “It felt like losing a close family member,” Kanwar said recalling her first reaction to the news of the leak. Apart from turning the stretch of water acidic, the molasses also ate up the dissolved oxygen. Like humans, fish require oxygen to live, which they absorb directly from the water using their gills. When the oxygen dries up, a fish usually comes to the surface to breathe in the air from its mouth.

This works for only for a short time as it is not what fish are made for and so they suffocate and die. The only glimmer of hope for the conservationists was that dolphins do not breathe using gills but oxygen in the atmosphere from the blowhole located on top of their heads. The loss of dissolved oxygen in the river water didn't cut off the dolphin's oxygen supply but whether they survived the acidic polluted water remained a torturous mystery. A survey team of WWF and forest personnel searched in vain for two days after the leak for any signs of the dolphins and during that period they thought the endangered species was lost again. Forest official Singh glimpsed a dolphin near Karmuwala village on the third day after a disappointing morning of spotting nothing and then mistaking a floating dead cow for a dolphin. What Singh spotted was an adult female and a few heart-stopping moments later a calf emerged in a graceful arc from the waters. On Sunday, they found a group of three. “All of us heaved a sigh of relief,” he recalled. Experts are still trying to find out how the dolphins remained unscathed from the acidic water. WWF's Kanwar believes that when faced with the torrent of foul polluted water the dolphins scurried to find cleaner side channels of the river. Since the pollutants followed the path of the river flow the side channels were not contaminated by the molasses leak.

A large number of bigger fish that were closer to the point of contamination died but those downstream were able to escape the incoming dirty water. “There was a large scale fish mortality. The livestock was not affected because people didn't bring them to the river water like they usually do,” Kuldip Kumar, the chief wildlife warden of Punjab, said. Kumar said that the dirty water flowed downstream and entered the irrigation channels that feed Rajasthan and Punjab. The loss of fish was staggering with the most mortality believed to be of three kinds of catfish: the Malhi (*Wallago attu*), Singhara (*Sperata seenghala*), monster fish (*Rita rita*) and the Rohu (*Labeo rohita*) and Mrigal carp (*Cirrhinus cirrhosus*), as per preliminary reports. Villagers buried some of the fish they tried to retrieve from the waters but most were left to rot along the banks and became food for dogs, riverine birds and other fish. District authorities issued advisories to fishermen to not sell the fish that died from the pollution but some were sold anyway in places further away like Amritsar. “The fishermen who caught the dead fish did not keep them for their own consumption, they sold all of them to the market,” a forest department official said on the condition of anonymity. “Why would they eat this fish when they saw how they died?” he asked. The dolphins may have survived the initial death blow but factors like a

diminished prey base, which includes catfish, could affect them and the long-term impact on the ecosystem will have to be studied.

“We are still investigating the impact on the river and species,” GS Majithia, chief engineer at the Punjab Pollution Control Board, who is leading a probe into the incident, said. The Rs 25 lakh security posted by the sugar mill was seized and it was shut down on May 18. The actions came too late, according to Kanwar. The pollution control board waited for a disaster to take action ignoring red flags along the way, and opportunities to take action, she said. “They were fined, they were shut down, but the fish are dead,” Atman Singh, a local forest official who guards the Harike bird sanctuary, said. The elderly men in his group, who also guard the bird sanctuary, nodded sagely. They seemed to have grasped something that slipped from the consideration of officials: No amount of fines and shut factories could manufacture a lost species. “The fish are gone,” one said quietly shaking his head.

### **Punjab: Molasses leak from sugar factory kills thousands of fish in Beas**

<https://timesofindia.indiatimes.com/city/amritsar/molasses-leakage-kills-thousands-of-fishes/articleshow/64209879.cms>

In a massive ecological disaster, a large number of fish were killed in the Beas on Thursday after molasses from a sugar factory leaked into the river. The presence of molasses, a byproduct in sugar factories used for alcohol production, has affected over 30 km of the river. Amritsar deputy commissioner Kamaldeep Singh Sangha said that molasses stored in a factory at Kiri Afghana village of Punjab’s Gurdaspur district had accidentally leaked into the river, resulting in a massive dip in the oxygen levels of the river, killing thousands of fish. Punjab minister OP Soni, who visited the affected area along with Amritsar Lok Sabha member Gurjit Aujla ordered a probe into the incident and issued an order to shut down the sugar mill. “I have marked an inquiry into the incident,” said Soni, adding that water samples were being collected from various places in the river to check the impact of the disaster. Sangha, who has been camping on the banks of the Beas since getting news about leakage of molasses into the river, said he also got water released from Pong and Ranjit Sagar Dams. The release of fresh water into the Beas will also help contain the problem.

“Water sample reports are better after the release of water from the dams,” said Sangha. The administrations of various Punjab districts including Amritsar, Tarn Taran and Gurdaspur have issued advisory warning people against eating and selling dead fish from the Beas after some residents of the villages along the river were seen picking up dead fish. Soni said teams from wildlife department, Punjab Pollution Control Board, Guru Nanak Dev University and other concerned departments were immediately informed about the disaster, but they didn’t find any toxin in the river water. “Lack of oxygen in the water has been determined as the cause of death

of the fish,” said the minister. Sangha said the water samples had been sent to the Guru Angad Dev Veterinary and Animal Sciences University in Ludhiana for complete chemical analysis. “Disturbing the ecological balance is a serious offense which attracts strict action,” warned Aujla.

### **Pakistan: Work on four new fish hatcheries in progress in South Punjab**

<https://www.urdupoint.com/en/pakistan/work-on-four-new-fish-hatcheries-in-progress-300359.html>

Punjab Fisheries Department is establishing four fish hatcheries in Multan division with an objective to promote protein rich food in the region. The new fish hatcheries are being made, two in Khanewal, one each in Lodhran and Vehari. This was stated by assistant director fisheries Ibrar Gujjar while talking to APP. He informed that new fish hatcheries were being developed after recommendations from various MPAs of the region. South Punjab is rich in production of fish, he said and added that about 80 percent of the Fish was produced in Multan, Khanewal and Muzaffargarh. To a question about Fish consumption in the country, Ibrar Gujjar added that per person consumption of fish in Pakistan was very low as an average of two kilogramme fish was consumed by every Pakistani in a year. However, at international level, the average stood nearly 25 kilogramme per year. The assistant director disclosed that there were already 12 fish hatcheries functional in the region and the new addition would be very much beneficial. To another question, the assistant director informed that the fish was produced at an area of nearly 50,000 acres in South Punjab. The Fisheries department was providing every possible assistance for promotion of the fish.

### **Punjab: Fish market menace: No place for shopkeepers**

<https://timesofindia.indiatimes.com/city/chandigarh/fish-market-menace-no-place-for-shopkeepers/articleshow/63199610.cms>

The municipal corporation here, which is already late in shifting the fish market even after judicial directions, is expected to delay the Punjab and Haryana high court orders even further. With this, the Patiala Municipal Corporation (PMC) would fail to provide the city residents a much-needed sigh of relief. The delay could be on the back of the fact that the PMC is facing opposition from the residents at the new site too. The PMC decided to shift the fish market from its present spot to Ghalouri Gate after the high court in June last year ordered to vacate the residential areas within six months. The residents near Ghalouri Gate raised their voices and protested on Monday against the PMC's move to provide temporary arrangements for the fish market at the proposed site. With this, the PMC officials are finding it difficult to continue with the construction, which includes building shed, as the residents of Patak Vihar Colony resisted against moving the fish market here.

Patiala Mayor Sanjeev Sharma reached the venue on Monday and in a bid to comfort the residents assured them that the new market would be shifted a few metres away from the proposed site. Notably, a two-judge bench of high court had passed the shifting orders on June 9, 2017 in the presence of PMC commissioner Gurpreet Singh Khaira. The court ordered to shift the fish market from the residential area and provide the basic amenities to the shopkeepers. The state government under the tenure of SAD-BJP decided to shift fish market after the natives of various residential colonies objected to the fish market creating a nuisance for the common public. The residents of Bharat Nagar were most affected by the market. The government then decided to shift the market to Ghalouri Gate. There are around 200 shopkeepers, who are unwilling to shift to the new place. The shopkeepers, who were currently running their business near residential areas including local factory area, Bharat Nagar, and opposite district court complex, were now seen looking for places where their businesses can flourish. "There was no protest at all, however, some residents raised their objections against the establishment of the fish market here.

They claimed that near the proposed site of the fish market there is a religious shrine. It was then the mayor directed to shift the new site a few meters away from the proposed one," said an MC councilor Sandeep Malhotra. "Around 500 sq yard area has been selected for temporary arrangements to shift the fish market at Sanauri Adda. The shopkeepers here will be provided all the basic amenities. We have six acres of land that belong to the PMC and out of this 500 sq yd have been selected. The estimated cost to complete this project of temporary facilities here is Rs 11 lakh", said GS Walia executive engineer of PMC.

### **Pakistan: Punjab looks to boost fish production**

<https://www.dawn.com/news/1388636>

The disappearance of hundreds of fishing ponds and lakes during the last couple of decades has affected the production of inland fish in Punjab. The provincial government now plans to introduce initiatives to promote aquaculture, attract investment in the fisheries sector and improve economy of the people associated with the business. Though the share of fish farming in GDP is 0.41 per cent, it has a value addition in export earnings. During the first nine months of the previous fiscal year (ie July-March 2016-17), total marine and inland fish production was estimated at 520,000 million tonnes, of which 375,000m tonnes came from marine fisheries and the remainder from inland waters. The Punjab government is working on a new package of incentives for setting up new fish farms and improving the existing ones in an attempt to check the decline in fish production and provide the masses with a cheap option of obtaining protein in the form of fish meat, says Iftikhar Ahmad Qureshi, director general of the provincial fisheries department.

A proposal has been forwarded to budget-makers for offering around Rs100,000 to Rs150,000 per acre to landowners who are ready to set up fish farms, he says. The existing fish farmers utilising conventional techniques are also being offered recirculation pumps for improving water quality through aerators that maintain a certain level of oxygen in water. A proposal has been forwarded to budget-makers for offering around Rs100,000 to Rs150,000 per acre to landowners who are ready to set up fish farms. Under another initiative, the fisheries department is giving solar pumps on a matching-grant basis to those associated with the business for the last five years and own between five and 15 acres. The project is aimed at reducing the production cost of fish farmers, Mr Qureshi says. Likewise, the department has also offered 3,000 genetically improved fish seed free of cost per hatchery to owners of private fish hatcheries for preparing broodstock under the Kisan package announced by the government in the previous financial year. Efforts are being made the world over to tap development opportunities in areas where agriculture activities have become difficult, if not impossible, because of salinity or brackish groundwater agriculture. Since the 1960s, zoology experts have been developing fish species that could flourish in the saline and brackish water.

These endeavours are being replicated in Punjab where vast tracts in certain districts are lying barren for want of sweet water or because of salinity and brackish water. These areas include Muzaffargarh, Taunsa Sharif, Faisalabad and Sargodha. Anser Mahmood Chatta, deputy director at the Punjab fisheries department, says efforts are being made to develop fisheries in saline and brackish water, particularly in south Punjab. "The selected areas have been thoroughly surveyed, their soil and subsoil water tested and analysed in the department's laboratories to identify the nature and quantity of various salts in it," he says. "Experts have concluded that the genetically improved farmed tilapia fish species is the best for culture." Unlike in the case of local species, the culture of tilapia can be expanded utilising brackish water for fish production on a commercial scale. The species belongs to the Nile, he says, adding that it was first introduced in Pakistan in the late 1970s and cultivation started in the 1990s after some genetic improvement. With the help of a programme funded by the United States Department of Agriculture, the tilapia fish production has been boosted up to 5,000 fish per acre with the help of soya-based floating feed.

"Keeping in view the constraints that have hurt the plans for shrimp farming along the Sindh coast, we are developing a hatchery in Muzaffargarh to ensure uninterrupted supply of seed to fish farmers. Besides, training programmes are being arranged for interested entrepreneurs," Mr Chatta says. The department is also planning mass awareness campaigns to promote fish consumption culture and create local market for fish farmers. The campaign is also aimed at breaking the myth that fish must not be consumed in the months whose names don't contain letter 'R', ie May, June, July and August. The official says that the myth had been created by the department itself back in the 1970s and 80s to prevent the people from eating fish during the

breeding season because then it could not have developed hatcheries to meet local needs for fish seed.

### **Punjab: Villagers use waterlogged fields for fish farming**

<http://www.tribuneindia.com/news/punjab/villagers-use-waterlogged-fields-for-fish-farming/482956.html>

More than 5,000 acres in about 35 villages in the district are waterlogged resulting in financial losses to farmers. The government authorities have claimed that the farmers are switching over to fish farming and earning handsome amounts out of it. Official sources said 120 farmers had adopted fish farming in 350 acres waterlogged land in villages, namely Shajrana, Bahadurkhera, Sayydanwali, Kala Tiba, Kera Khera, Bahalwasi, Dhaban Kokrian, Khui Khera and Burz Hanumangarh. Deputy Commissioner Isha Kalia said 50 per cent to 90 per cent subsidy is offered to the farmers to set up fish farming infrastructure. Deputy Director, Fisheries Department, Fazilka, Rajinder Kataria said the farmers were earning Rs 80,000 to Rs 1.20 lakh per acre in these areas. Dharam Chand, a farmer of Shajrana village, said his land which was once very fertile but had been lying unused following the waterlogging problem since 1980. Now he had set up a water pond in 2.5 acres of land and was earning Rs 2.5 lakh per year out of it. Kataria said the farmers had been rearing the fish from 16 to 20 quintals per acre. "The bulk buyers of the fish are traders from Delhi and Ludhiana besides the nearby areas who used to come to the pond and collect the fish of their own choice," claimed Kataria.

The Deputy Director said shrimp farming in waterlogged area was also suitable with salinity of 5 ppt (parts per thousand) and the farmers could earn Rs 4 to 5 lakh per acres by rearing shrimp. Making moolah \* More than 5,000 acres in about 35 villages in Fazilka district are waterlogged \* Official sources said 120 farmers had adopted fish farming on 350 acres of waterlogged land in villages \* Deputy Director, Fisheries Department, Fazilka, Rajinder Kataria said the farmers were earning Rs 80,000 to Rs 1.2 lakh per acre in these areas

### **Punjab and Haryana: High Court shocker for fish sellers**

<http://www.tribuneindia.com/news/chandigarh/courts/high-court-shocker-for-fish-sellers/396757.html>

Dismissing the writ petition of fish sellers regarding the operation of Fish Market from the local factory area, the Punjab and Haryana High Court denied any relief to the shopkeepers. The high court issued directions to the Municipal Corporation, Patiala, to take appropriate steps for the purpose of providing infrastructure to fish sellers at the designated area, which is at Ghalauri Gate. The court has also dismissed the appeal of stay of shopkeepers regarding the sale of fish from the existing Fish Market in the factory area. In their plea, the fish sellers alleged that the MC allotted an unhygienic and dirty place at Ghalauri Gate for the same following the removal

of the Fish Market from the factory area. Residents of the factory area, councillor Harpreet Kaur and her husband Sukhwinder Pal Minta, a former councillor, led a campaign to remove the Fish Market. The residents also staged protests against the foul smell and other issues created due to the sale of fish that led to the closure of the market by the local administration in November 2016. Minta claimed that earlier the orders of the high court were misinterpreted by the shopkeepers as in the orders the 'existing location' was meant by their working places after the removal from the factory area.

Minta said: "The shopkeepers again set up their shops in the factory area in February, after misinterpreting the orders of the high court." He said now, the MC and the local administration should immediately remove the shops as they had again created a ruckus in the area. The Fish Market was closed by the local administration under Section 133 of the IPC after the orders of the Patiala sessions court. The court stated that the market could not exist in the residential area and asked the Municipal Corporation to facilitate an alternate place to the shopkeepers. After the court orders, the local MC facilitated the shopkeepers with the alternate place at Ghalaori Gate. However, the shop owners again moved the high court against the allocation of the place in unhygienic conditions.

### **India and Pakistan: BSF seizes two Pakistani boats from Sutlej river in Punjab's Ferozepur district**

<http://www.financialexpress.com/india-news/bsf-seizes-pakistani-boat-from-sutlej-river-in-punjab-ferozepur-district/612934/>

A month after Pakistan arrested nearly 88 fishermen, the BSF today seized two Pakistani boats from the Sutlej river in Punjab's Ferozepur district. They were loaded with 400 kg of fish. Earlier in the morning today, Pakistan violated ceasefire in Pooch district of Jammu and Kashmir, to which security forces retaliated strongly. Last month, the Pakistan Navy had apprehended 88 Indian fishermen and 15 boats off the Gujarat coast in the Arabian Sea. They were arrested from Jakhau village of Gujarat. Earlier this year, nearly arrested sixty Indian fishermen were arrested by Pakistan for allegedly straying into its territorial waters. The fishermen were arrested by Pakistan Maritime Security Agency (PMSA).

After arresting them, fishermen were made to appear before a judicial magistrate. According to the agency, the arrests were made after the Indian fishermen were seen fishing in waters of Pakistan and had refused to leave even after repeated warnings. Before this, the neighbouring country had released 219 Indian fishermen as a goodwill gesture. The incidents of arresting fishermen have been increasing in the Arabian Sea in recent times. On several occasions, fishermen have to spend months and years in jails before they are deported back to their country. The Sri Lankan Navy had earlier apprehended eight Indian fishermen in Dhanuskodi. It also

arrested 13 Indian fishermen along with two boats in the sea area that is located north of Delft Island.

### **Punjab: Boat Makers Of Punjab**

<http://hillpost.in/2017/02/boat-makers-of-punjab/108086/>

The five rivers irrigating the vast land of Punjab bordering Pakistan on one side, and Haryana, J&K, Himachal on the other, were once the waterways of the state. When the road and rail network was not established the boats alone were the medium of crossing rivers. Like many other states the rivers were then not bridged. The then prevailing conditions provided ample business opportunities to the boat manufacturers in the state. In order to know the practices and opportunities available during those days to such people this reporter wandered to locate such people and finally met the lone boat manufacturer still continuing the ancestral legacy for over a century at Rupnagar, a place some 45 kms from Chandigarh, where the mighty river Satluj is barraged for diverting into irrigation canals. Ravinder Singh and his son Harvinder Singh continuing their ancestral business took me into the past, of pre independence era. With their shop on the bank of Sirhind Canal flowing within the Rupnagar city they feel proud to follow the customs though the patterns have changed with time.

Ravinder Singh told that in early 1900s the river Satluj was the major waterway for transportation of wooden logs and also other merchandise. Sitting beside the canal I saw it strong current flowing below and wondered how the transportation was being carried out. Ravinder Singh in his late 70s told that they used to manufacture big boats of upto 50 feet long and 12 feet wide. The wooden logs flowing in River Satluj from Himachal Pradesh, he told used to be diverted into the Sirhind Canal through a small rivulet called 'kishti nalah'. The big boat, he told was also used as a medium of transport for the people. The boat could carry as many as 100 people besides livestock and merchandise. But one thing was baffling that the boat could flow downstream easily with the water current but how would it be brought back. To my surprise, he told that the boat used to be tied to bullocks walking on both sides of the canal who would pull it upstream against the current.

There was a proper bullock path well maintained on both sides of the canal between Rupnagar then known as Ropar and Doraha, some 40 kms downstream he said. Ravinder Singh nostalgically remembered his grandfather Bhagwan Singh and father Bishan Singh from whom he had learnt the skills. The journey of boat making over the four generations had travelled from wooden to aluminium and now to fibreglass the young Harvinder told. With times, Harvinder told they were following the sale process through government tendering. Mostly they were engaged in government supplies to Flood Control, Tourism, BSF, Fisheries and Power generation companies. In private supplies, he told that they also catered to amusement parks and racing boats all over the country. About costing, he informed that the same depended on size

which vary between 10 feet to 18 feet long and 6 feet wide, as well as the material used. About fabrication of fibreglass boats, Ravinder told that the boat was first cast in wood and the dye so prepared was then used for giving shape to the boat.

The motor boats, he told would cost more depending upon the size and quality of motors. They were also into making pedal boats for tourism, he added. But quietly he admitted that the business was gradually taking a hit and they had simultaneously entered into furniture making. I had an anxiety about the myth of wearing finger rings made of boat nail iron. While Ravinder expressed his total disbelief to this myth his friend sitting close by told that the flowing water is considered to be sacred and the boat is a replica of movement, gati, which is strengthened by nails. These nails bind the wooden planks of the boat and hold them together and as such considered relation binders. Hence the finger ring made of such nails, he told, is believed strengthens the relationship between husband and wife as well as provide growth to their life.

### **Punjab: Farmers get info about carp breeding**

<http://www.tribuneindia.com/news/ludhiana/community/farmers-get-info-about-carp-breeding/354378.html>

A monthly meeting of Innovative Fish Farmers Association (IFFA) was held at College of fisheries, Guru Angad Dev Veterinary and Animal Sciences University here today. Farmers from different districts of the state attended the meeting. They were apprised about the control of common carp breeding in February-March by Dr Vaneet Inder Kaur, co-ordinator of the IFFA. She revealed that common carp is one of the important carp species with bottom feeding behaviour, but due to its prolific breeding after every six months under stagnant pond conditions, can lead to its excessive population in the pond. If not managed properly, it can have negative impact on the growth of other species due to depletion of food and space for them.

Through judicious utilisation of the organic matter generated from different livestock systems, the farmers can get maximum benefit by integrating different ventures. In this regard, Dr Sandeep Kaswan, Assistant Professor, Department of Livestock Production and Management delivered a lecture on integrated fish farming with special reference to goat farming. Dr H K Verma, Director of Extension Education, GADVASU said that university is also organising training programme on different disciplines of livestock farming and fisheries.

### **Punjab: Residents protest, Admn orders closure of fish market**

<http://www.tribuneindia.com/news/chandigarh/community/residents-protest-admn-orders-closure-of-fish-market/335326.html>

Following a massive protest by residents of the factory area here today, the district administration ordered the closure of the fish market that has reportedly been operating illegally

in the area for the past several years. Patiala Deputy Commissioner Ramvir Singh ordered in the evening that the market shops should be shut and the shopkeepers were permitted to shift their belongings by Sunday afternoon. Former Municipal Councillor Sukhwinder Pal Minta said the market shopkeepers had lost the case in a local court, following which the court had declined any stay. He said despite repeated requests to the administration for the past many weeks, no one was interested in executing the court order. So the area residents staged a dharna for the cause, he said. The administration had now asked the shopkeepers to close the shops till further orders, following the protest. Heavy police was deployed in the area due to the protest. Sources said some local politicians were backing the fish market and were pressurising the administration “to let the market continue”. Area Municipal Councillor Harpreet Kaur and her husband Sukhwinder Pal Minta, former Municipal Councillor, were up in arms against the district administration and had approached the court to seek the closure of the market.

They had even taken up the matter with Deputy Chief Minister Sukhbir Singh Badal during his ‘sangar darshan programme’ a few weeks ago, and the Deputy Chief Minister had asked the Patiala Municipal Corporation to initiate an appropriate action in this regard. In September, a month after the district authorities had removed the fish market from the area due to a number of complaints by residents, the market was again allowed to operate after a local court stayed the proceedings. However, the affected shopkeepers said they should be provided with separate shops as the market was the source of their livelihood.

### **Punjab: Climate change meet: Presentation given on solar projects in Chandigarh**

<http://indianexpress.com/article/india/india-news-india/climate-change-meet-presentation-given-on-solar-projects-in-chandigarh-4372512/>

A presentation was given Saturday on how Chandigarh is being developed as a “Model Solar City” at the 22nd Conference of Parties (COP 22) to the UN Framework Convention on Climate Change (UNFCCC), being held at Morocco. Chandigarh is representing India in the field of solar power. Santosh Kumar, Chandigarh Renewal Energy, Science and Technology Promotion Society (CREST), is part of an Indian delegation, said that a detailed presentation on how Chandigarh is being developed as model solar city was given.

He said that representatives of other countries lauded the efforts being put in by Chandigarh in field of solar power. A documentary film on Chandigarh was also showed in the conference. Chandigarh, which is being developed as model solar city, had also participated in the 21st edition of the conference held in Paris last year. Chandigarh is ranked number one city in the country in the installation of solar rooftop plants on government buildings. So far, it has managed to install solar panels on over 120 buildings. The Chandigarh Administration aims to generate 100MW, both residential and government, by 2022. However, despite efforts by CREST, the response from city residents opting for solar power is not very impressive so far.

## **Punjab: Badal announces R&D centre to boost shrimp production**

[http://www.business-standard.com/article/pti-stories/badal-announces-r-d-centre-to-boost-shrimp-production-116111000932\\_1.html](http://www.business-standard.com/article/pti-stories/badal-announces-r-d-centre-to-boost-shrimp-production-116111000932_1.html)

In a bid to boost income of farmers in Punjab's south-western parts through pisciculture, Chief Minister Parkash Singh Badal today gave nod for a Research and Development Centre near Malout to promote shrimp farming. "The 'Blue Revolution' in the state could transform the destiny of farmers," he said while interacting with a delegation of progressive fish farmers at his residence here. The unprecedented success of shrimp (Jhinga) farming in brackish waters in Muktsar and Fazilka districts has proved its huge potential as an allied source of income for farmers, Badal said. "The SAD-BJP government was making all out efforts to promote fish farming in the state," he said.

The Chief Minister said, "Though Punjab pioneered the Green Revolution, which was instrumental in providing food security to the country, agriculture was no longer a profitable venture because of escalating input costs and squeezed profit margins." "Because of these factors farmers of the state were on the brink of an economic crisis," he claimed. "In such a dismal scenario pisciculture was the only ray of hope for farmers as they could supplement their income through it," he said. The state government would set up a dedicated fund for running this centre, Badal assured. The Chief Minister announced that the state government would give a 50 per cent subsidy on equipment, feed and seed to boost production of shrimps in the state.

## **Punjab: Badal announces 50 percent subsidy on shrimp production**

[http://www.business-standard.com/article/pti-stories/badal-announces-50-pc-subsidy-on-shrimp-production-116102000881\\_1.html](http://www.business-standard.com/article/pti-stories/badal-announces-50-pc-subsidy-on-shrimp-production-116102000881_1.html)

Punjab Chief Minister Parkash Singh Badal today announced a subsidy of 50 per cent to give further boost to shrimp production in the state. A decision to this effect was taken by Badal while presiding over a meeting with fish rearers and fishery experts here. Badal further asked fish rearers to set up shrimp producer's society with fair representation of fish farmers, experts of fishery from Guru Angad Dev Veterinary and Animal Sciences University (GADVASU) and officials from the state fisheries department to enhance the Shrimp production on scientific lines. He also directed the Additional Chief Secretary (Animal Husbandry, Dairy & Fisheries) to send the interested fish farmers for training at Indian Council for Agricultural Research-Central Institute of Fisheries Education (ICAR-CIFE), Rohtak to learn about the emerging techniques of shrimp production besides the significance of quality water check.

The Chief Minister also impressed upon the Fisheries department to send a delegation of progressive farmers from the state to Andhra Pradesh to update their knowledge about the latest techniques of shrimp production, an official release said here. The Chief Minister also assured

fish farmers that he would soon take up the case of allotting an ICAR-CIFE Centre for Punjab with Government of India to promote fishery in a big way on the pattern of one such Centre already existing in Rohtak (Haryana). He also gave a nod to the department for the purchase of insulated vehicle for the transportation of shrimp from the fish farms to the nearest fish market outlets.

### **Punjab: Experts: Fish farming yields high returns**

<http://www.tribuneindia.com/news/ludhiana/community/experts-fish-farming-yields-high-returns/305585.html>

A five-day training programme on fish farming was conducted at the College of Fisheries, Guru Angad Dev Veterinary and Animal Sciences University (GADVASU). Farmers, unemployed youth as well as entrepreneurs belonging to non-farming community from Ludhiana, Mansa, Jalandhar, Bathinda and Ferozepur attended the programme. Technological inputs for scientific farming of different species such as carps, catfish, prawns/shrimps, ornamental fish and Azolla was provided to the trainees. Lectures on role of media in marketing, on-going promotional schemes of the government for financial assistance to fish farmers and extension/utility services provided by GADVASU, were also delivered. Fish farming was a lucrative enterprise for diversification for farming community. It helped achieve higher earnings per unit land holding and required less labour as compared to agriculture and livestock farming systems, experts said.

### **Punjab: Punjab government bans exotic magur in state**

The Punjab has issued directions placing complete ban on fish farming of exotic magur (*clarius gariepinus*) which is hazardous for the indigenous fishes of the State. This exotic magur eats the other fishes and also their feed in the pond. Disclosing here today, Animal Husbandry, Dairy Development and Fisheries Minister, Punjab, Gulzar Singh Ranike said that concerned matter was brought to the notice of Fisheries department and this specific breed of fish causes the harmful effect on the environment also posing danger to the Indian breeds. The Animal Husbandry Minister said that in order to stop the breeding of exotic magur, a special committee has been constituted to ensure the compliance the order of State Government and the said committee has issued instructions to the concerned department to conduct surprise checks in this regard. He further said that on the direction of constituted committee, 12 kg of *clarius gariepinus* was seized and destroyed on the spot and on 25 August, 2016 fine imposed to the the farmer in Village Gorla of District Sangrur.

### **Punjab: Ornamental fishing to benefit rural farmers**

<http://www.tribuneindia.com/news/ludhiana/education/ornamental-fishing-to-benefit-rural-farmers/291373.html>

A three-day training programme on 'Ornamental fish farming' was organised at College of Fisheries, Guru Angad Dev Veterinary and Animal Sciences University (GADVASU) to promote ornamental fish culture among fish farmers, unemployed youth and women. While inaugurating the training programme, Asha Dhawan, Dean, College of Fisheries, said the global ornamental fish trade was worth Rs 2,000 crore with an average annual growth rate of 14 per cent. It contributed significantly to rural development through livelihood generation in many developing countries including India with an ornamental fish market worth Rs 50 crore contributing 0.32 per cent to global ornamental fish trade. The participants including hobbyists and traders from different districts of Punjab were imparted technical know-how on different aspects of ornamental fish culture such as identification of important cultivable varieties; culture and breeding processes; feed and feeding management; water quality management; pond management; disease management; propagation of aquatic plant; aquarium fabrication; decoration and maintenance.

Vaneet Inder Kaur and Sachin Onkar Khairnar said a small backyard culture and breeding model with an average earning of Rs 8,000 to 9,000 per month had been developed in the college for demonstration and skill development in the farming as well as non-farming communities including rural household women, youth, hobbyists and traders. Brood stock rearing and seed production of various ornamental fish varieties such as Koi Carp, Gold fish, Molly, Platy and sword tail had already been carried out successfully at College of Fisheries and the technologies were being demonstrated to the masses through regular training programmes. While addressing the trainees, the chief guest at the valedictory function, Harish Kumar Verma, Director, Extension Education, GADVASU, asked all the participants to adopt small scale enterprise such as ornamental fisheries for additional income and financial security. Verma also informed the trainees about various training programmes conducted by GADVASU and advised them to keep in touch with experts and their fellow farmers for updates. Feedbacks with suggestions from the participants were recorded for impact assessment and improvement to make trainings farmers-friendly.

### **Punjab: Anti-larvae fish to combat mosquitos**

<http://timesofindia.indiatimes.com/city/chandigarh/Anti-larvae-fish-to-combat-mosquitos/articleshow/53309902.cms>

The fisheries department of Chandigarh is working jointly with the health department to control and fight mosquito-borne diseases like malaria, dengue which have become a common name in every household. Particularly in ongoing rainy season, mosquitoes breed very rapidly causing the spread of diseases. The health department has identified stagnant water points in various

locations of the city where officials of both departments are releasing Gambusia fish, commonly known as anti-larvae fish, as it eats larvae of mosquito and prevents further breeding. So far, this anti-larvae fish has been released in Rock Garden, Baghiya Nursery, Divine Nursery, Ram Nursery, Durga Nursery, and in Sector 26. Other points include Bougainvillea Garden, Sector 10; Leisure Valley, Rose Garden, Sector 16 and Shanti Kunj, Sector 16. Chandigarh administration does not want to leave any stones unturned and is making all efforts to check the spread of mosquito-borne diseases. In the northern region, Government Fish Seed Farm, Chandigarh, only breeds rare fishes and supplies to several agencies free-of-cost for stocking in stagnant water bodies to prevent mosquito breeding

### **Punjab: MC to remove illegal fish market under Jagraon Bridge**

<http://www.tribuneindia.com/news/ludhiana/governance/mc-to-remove-illegal-fish-market-under-jagraon-bridge/265252.html>

Mayor Harcharan Singh Gohalwaria visited the illegal fish market under the Jagraon Bridge and asked the officials of the Tehbazaari wing to remove at the earliest. Also, a drain is passing through the shops, which remains encroached and officials have been asked to remove the encroachments from the drain as well. He directed the officials of the Operation and Maintenance Cell to first clear the filth and debris from inside the drain as due to the choking of this drain there was a waterlogging problem in Dholewal area and Gill Road. The illegal fish market near railway lines gives a shabby look and is unhygienic as well. The Mayor said, “Slaughtering in open is not allowed and it is hazardous for health as well especially in this weather. The officials have been directed to clear everything as soon as possible.”

### **Punjab: Fish mandi in Amritsar is ready: CPS Des Raj Dhugga**

<http://www.hindustantimes.com/punjab/fish-mandi-in-amritsar-is-ready-cps-des-raj-dhugga/story-DIZYYUEotnNk3TgTwryvfl.html>

Incentives given to fish farmers has paid dividends, helping the state attain the top slot in fish farming in the country, said chief parliamentary secretary (CPS) and state legislator from Sri Hargobindpur Des Raj Dhugga here on Sunday. Dhugga said 38,000 acres of land has been brought under fish farming in Punjab. He said the state has been producing 6.5 tonnes of fish per hectare, while the national average is 3 tonnes per hectare. Dhugga said the Punjab government, under its diversification programme in farming, is providing 90% subsidy for fish farming in wetland areas of the state and 50% in other areas.

The CPS said the construction of fish mandis has been completed in Amritsar and Bathinda, and fish farmers and sellers will be allotted space at these mandis soon. Dhugga said the state government is setting up Regional Fish Farming Research Institute at Bathinda, which will be helpful in increasing the production of fish by using latest technology. He said the government

has also sanctioned setting up of four laboratories for testing soil and water. First such laboratory is coming up at the Fish Seed Farm in Dhandua in SBS Nagar district.

**Punjab: New hatcheries, nursery units: Punjab government spending Rs 632 million on establishment**

<http://www.brecorder.com/agriculture-a-allied/183/50447/>

Punjab government is spending Rs 632 million on setting up of new hatcheries and nursery units to meet the growing demand of fish seed, besides the use of barren lands for fisheries purpose. While presiding over a review meeting regarding the ongoing development projects on Friday, the Director General Fisheries Punjab, Iftikhar Ahmed Qureshi said that 60 acres of land has been procured in Lahore at Bhaseen at a cost of Rs 14 million to establish a large hatchery in first phase whereas suitable lands are being identified in other districts. The main objective of the project is to provide quality fish seed to the fish farmers, he said. Each nursery comprising five acres of land would be set up in Pakpattan, Mandi Bahauddin, Narowal, Chiniot and Nankana Sahib for which suitable land is being identified that would be procured in the next financial year. Following setting up of a large fish seed hatchery in Lahore and nursery units in five districts, the production of additional quality fish seed of culturable species could be possible.

Qureshi said that barren lands would be utilised for the promotion of fisheries to meet the fish seed requirements of the public and private sectors. A comprehensive plan has also been devised at a cost of Rs 165 million. Under this project, a fish seed hatchery would be established in Rajanpur district which will increase the production capacity of fish seed from 600 to 800 metric tons that would be supplied for natural waters in Dera Ghazi Khan Division and fish farms set up in private sector, he added.

**Punjab: First ever Punjab Fish Mela concludes at PAU**

<http://www.tribuneindia.com/news/ludhiana/education/first-ever-punjab-fish-mela-concludes-at-pau/227703.html>

The two-day Punjab Fish Mela-2016, organised by the Fishery Department, concluded at the PAU here today. Irrigation Minister Sharanjit Singh Dhillon was the chief guest on the occasion. A seminar, exhibition and cultural programmes were organised on the concluding day. Farmers rearing fish spoke about the problems they were facing while experts gave them the solutions. Dhillon said the event would help farmers adopt occupations related to fishery as their prime occupation. He added that fish farming, poultry farming, goat farming, pig and dairy farming if adopted together, could be cost effective and more productive, apart from generating income. Speaking on the occasion, Mandeep Singh Sandhu, Additional Chief Secretary (Animal Husbandry, Fisheries and Dairy Development), said Punjab was the first state in the country

which was giving 50 to 90 per cent subsidy on fish farming. For marketing, three state-of-the-art fish markets have been started in the state, he said.

Sandhu exhorted experts to research and encourage fish farming in areas having hard water, as well. Later, he honored progressive farmers and scientists in the field of fisheries. Meanwhile, scientists shared their views about fish farming during a seminar organised today. During a session, Dr Gopal Krishna, Vice-Chancellor-cum-Director, CIFE-Mumbai, spoke about fisheries education and training in India. Another expert Dr Harikrishan, scientist in charge, CIFE-Rohtak, spoke about rearing of prawns in hard water areas. Dr P Parveen, Assistant Director General, ICAR-New Delhi, spoke about boats and net for catching fish. Other experts spoke about value-added fish products, status of fish farming in the state and cage culture etc.

### **Punjab: Punjab govt to organise fish festival in Ludhiana on April 24, 25**

<http://www.hindustantimes.com/punjab/punjab-govt-to-organise-fish-festival-in-ludhiana-on-april-24-25/story-miFPObwwBsWtlDZ760EIfK.html>

promote fisheries as an alternative venture, the Punjab government for the first time will organise a two-day fish festival at Ludhiana on April 24 and 25. Giving details, animal husbandry and fisheries minister Gulzar Singh Ranike said the fisheries department would collaborate with the National Fishery Development Board, Hyderabad. “The festival is aimed at giving maximum exposure to fish farmers so that they can derive maximum benefit out of this. South-west districts which are waterlogged will be developed for fisheries on a large scale,” he said. The minister said that during the festival, technical sessions had been planned for guidance by renowned scientists from across the country. The festival will also witness an exhibition on hi-tech machinery and other essential items required in fish farming. Progressive fish farmers will be honoured on the occasion.