

**“Fear and apprehension in the minds of Goans residing in Goa that fish which is brought to be sold from outside the boundaries of Goa is laced with Formalin. Action the Government has taken to ensure that fish being the staple diet of Goa’s local population is free from this carcinogenic substance.”**

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Speaker Sir,

1. The Government is aware of the fact that fish is the staple food of the Goans. Goans prefer other varieties of fish including crustaceans which are not found along the coast of Goa and the local catch is mainly restricted to limited variety of fish such as Mackerels, Sardines, Lepo, Prawns, Tuna etc. Further, Goa being a renowned tourist destination with a vibrant tourism industry, the demand for popular variety of fishes like Pomfret, Seer fish etc. from the tourism industry could not be catered by the local catch alone. Hence, the demand for fish is met by importing the fish from the other States across the country. Such import of fish, apart from reducing the Demand-Supply gap also helps in stabilising the market price of the fishes thereby making these fishes affordable for the Goans.
2. The local catch which is not in high demand with Goans such as ribbon fish, cuttle fish is exported. The fishing ban season of Goa being from 1<sup>st</sup> June to 31<sup>st</sup> July, the demand for fish in Goa is met by import from the States like Tamil Nadu, Andhra Pradesh, West Bengal, Orissa, Karnataka etc. and the fishing ban season in most of these coastal States is already over.

3. The FDA has been specifically carrying out inspection of the fishes during the fishing ban period for the past few years. For instance, in the month of July 2017, the Department of Fisheries had received a complaint requesting to monitor the quality of fish supplied and sold in the Fish market, which was forwarded to the Directorate of Food and Drugs Administration by the Fisheries Department with a request to conduct joint inspection alongwith their Department.
4. Accordingly, the Directorate of Food and Drugs Administration alongwith Fisheries Department conducted Joint inspection in the various markets of Goa and had drawn total of 10 samples of fish from Panaji and Margao market and the same was subjected for analysis at the Food and Drugs Laboratory at Bambolim. No adverse findings in the above 10 samples of Fish was reported by the Food Analyst.
5. In the month of July 2018, the Directorate of Food and Drugs Administration received a complaint wherein it was alleged that the fish preserved using formaldehyde is being supplied during the ban season. The complaint also mentioned that the fish adulterated with formalin was detected in Kerala, which was sourced from States of Tamil Nadu and Andhra Pradesh.
6. Taking cognisance of the complaint, the Directorate of Food and Drugs Administration began investigating the complaint to rule out the possibility of the fish imported from Andhra Pradesh, Tamil Nadu and other States being contaminated with formaldehyde. Inspections were conducted at Margao and Panaji on 12/07/2018. Since there are a large number of consignments waiting to be unloaded for distribution/sale at the wholesale fish market, Margao and drawing the sample for lab analysis and getting the results from lab analysis may take at least 4 hours which may cause inconvenience, it was decided to do the



screening tests in the first instance and if any sample is found not passing the Screening test, the samples may be drawn for detailed lab analysis and till such time the suspected consignment to be detained. The Screening tests performed at the site was done using **Schiff Reagent** which is the only Screening test available then for detection of presence of all aldehydes including formaldehyde. The Screening tests conducted on the spot at Panaji and Margao showed that the samples were found not passing the preliminary screening test.

7. It is however to be clarified that the results of the Screening test are only indicative and need to be confirmed by the Confirmatory tests at the Laboratory for the presence of added formaldehyde using validated tests recommended by FSSAI. Accordingly, the Directorate of Food and Drugs Administration officials brought the samples to the FDA Laboratory at Bambolim. The said samples were tested using “Free Formaldehyde Test method” as recommended by FSSAI. The results were found to be below the detection level when compared to standard solution of 0.5ppm. Accordingly, the results should have been reported as formaldehyde negative as it was done in the past. However since by then media(electronic and visual media) had widely reported the result of the Screening test done on the spot, which is only an indicative test, the Laboratory Report mentioned that the formaldehyde content was within the “permissible limit” which is a misnomer as there is no permissible limit specified under FSSAI regulations.
8. The clarification in this regard was issued subsequently by the Director of Food and Drugs Administration as well as by the Minister for Health to clear the doubt in the minds of the people.
9. As the fish samples after detailed lab analyses were found to be of satisfactory quality safe for consumption, the consignments from all

vehicles from which the samples were drawn at Margao were allowed to be sold. The samples drawn at Panaji market were from the retail fish vendors.

10. The Food Safety and Standards Authority of India (FSSAI) is the Central Authority for laying down science-based standards for articles of food and to regulate their manufacture, storage, distribution, sale and import to ensure availability of safe and wholesome food for human consumption. As per the Guidance Note No.1/2018 on the subject “ISSUE OF FORMALIN IN FISH” issued last week by FSSAI, it is mentioned that “**Generally, formaldehyde is naturally present in marine fishes (like mackerel, Bombay duck etc) and shellfishes (shrimps and brackish-water prawns)** and it is very minimal (less than 4 mg per kg) or absent in freshwater fish.” Further it is also mentioned that “Formaldehyde exists in many animal and plant species as a product of their normal metabolism. **Formaldehyde is documented to be naturally present in many common food items**, including fruits and vegetables (approximately 20 to 60 mg per kg in fruits/vegetables), meats (approximately 5-20 mg per kg), **fish (approximately 5 to 140 mg per kg), crustacean (approximately 10 to 100 mg per kg)** and mushrooms (approximately 60 in fresh to as high as 400 mg per kg in dried shitake mushrooms) etc. In most marine fishes, formaldehyde is a natural breakdown product of a chemical known as trimethylamine oxide (TMAO) that exists in their bodies. Once the fish harvested, TMAO breaks down into formaldehyde and dimethylamine in equal parts during the post-mortem. It can also accumulate in certain marine fish and crustacean during frozen storage.”
11. Recently, Central Institute of Fisheries Technology, Cochin has developed spot detection kit – CIFT Test Formaldehyde detection kit



for fresh fish. As per the FSSAI guidance document, this test can be used as a Screening test to detect the presence of **added formaldehyde**. The Directorate Of Food and Drugs Administration has procured these test kits and have started the testing the fish samples using this kits at FDA Laboratory and since 14/07/2018 have tested around 116 samples of different variety of fish drawn from the markets of Margao, Panaji, Vasco, Mapusa, Ponda and Bicholim and all these samples have passed the test indicating that no added formaldehyde was used to preserve the fish. The above samples were also tested by subjecting to the confirmatory test at the Laboratory following the “free formaldehyde test” as per the FSSAI guidelines.

12. The Government having utmost concern for the health of the people and to remove the fear and confusion that has been created in the minds of Goan, has imposed a ban on the storage, distribution or sale of fresh fish including crustaceans brought from outside the State for consumption in the State of Goa for a period of 15 (Fifteen) days from 18<sup>th</sup> July, 2018. Since the enforcement of the ban, the police in association with transport department had prevented the entry of 9 trucks of fish brought from outside the state, at the border check points. The Government is ready to consider extending this ban for a further period in the interest of the health of the Goans if the prevailing circumstances warrant the same.
13. Even as and when the ban is lifted, to build confidence among the Goans regarding the quality of fish available in the market and to ensure the quality of fish sold in the market, the FDA along with the Directorate of Fisheries and Police assistance shall continue to monitor the quality of the fish by carrying out the routine and periodic inspections at the major markets of Margao, Panaji and Mapusa. The

above mentioned CIFT validated Screening test kit recommended by FSSAI shall be used to detect the presence of added formaldehyde.

14. If the fish samples are found passing the Screening test, the fish consignment will be allowed to be sold. If the CIFT validated Screening test result shows that there is contamination by the added formaldehyde, then the results will be confirmed by subjecting to confirmatory tests at the FDA Laboratory as per FSSAI guidelines. Depending upon the results obtained by the confirmatory tests at the FDA further action such as releasing the consignment for consumption or destruction of the consignment will be initiated. Also, criminal action as per the provisions of the Food Safety and Standards Act shall be initiated against the concerned fish dealer.

15. To sensitise the local vendors and traders who are dealing with the fresh fish imported from other states, about the harmful effects of use of formaldehyde as a preservative, the FDA in association with the Fisheries Department would organise sensitisation programs for the wholesale and retails traders so as to enable and equip them to identify fish laced with formaldehyde.

16. Fish being the staple food of the Goans and the issue on hand has a direct bearing on the health of Goans, I would urge upon all the Hon'ble Members of the House to refrain from politicising the issue and request all of them to support the Government on the action taken and proposed to be taken for addressing this issue.

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