

# Impact of Sensor Networks on Aquatic Biodiversity in Wetland: An Innovative Approach

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**Abstract** Aquatic biodiversity is in the central field of environmental conservation issues in a wetland. Yet it determinately faced aquatic conservation authorities the loss of biodiversity as a very important global issue for several years due to misuse wireless sensor technology. The study attempts to re-look at the sensor networks that affect the aquatic biodiversity within and around the Tanguar Haor- wetland study at Sunamganj district in Bangladesh. Key aquatic conservation tools provided at the Tanguar Haor and its challenges with gaps in policies for wetland management practices are highlighted. The study shows the aquatic biodiversity-related rules and regulations amended were apex in Bangladesh from 2010 to 2018. The study represents the impact of processed sensor networks on aquatic biodiversity in a wetland to be compared to larger, medium, and smaller animals in a bright, dark and optimum environment, facilitating the design and misuse of wireless sensor networks within GPS locations. Approximately 64% of the respondents agreed on the development of aquatic biodiversity for managing the wetland at Sunamganj with secure peripheral sensor networks. The research also found that the Tanguar Haor is at risk due to misuse of wireless sensor networks compared to other wetlands in the Sylhet Division. Scientific knowledge is indispensable in wetland resource management but it poorly identified such knowledge while various performances are still below par. The research is unique and represents the innovative idea to improve the existing wetland policy linking with the appropriateness for the Ramsar Wetland Conservation Strategy.

**Keywords** Biodiversity, Sensor Network, Wetland, Tanguar haor, Ramsar

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## 1. Introduction

Aquatic Biodiversity is in the core field of environmental issues in wetland management [1,2,3,21]. Wetlands deal with habitat for thousands of aquatic and terrestrial species community living in the soil surface through controlling floods [22]. Moreover, wetlands also engage additional sediment, nutrients, and other pollutants before they attach in

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lakes, canals, rivers and other water bodies [31]. But these wetlands are losing its habitat and biodiversity at an alarming rate and it augments day by day due to unwanted reasons. Some scientists remain in mysterious exploring the root causes. So, the problem of loss of biodiversity has been raised as a very important global issue for several years due to the lack of dynamic policies, technological application, institutional support, and stakeholder engagement [1,2,3,4]. This study aimed to assess the wetland policy instruments including legal, *in-situ*, and informational instruments for conserving biodiversity through primary and secondary data analysis at Tanguar Haor Wetland (THW) in Sunamganj district, Bangladesh. Key conservation innovative instruments provided at the THW and its challenges with gaps in policies and cutting-edge sensor technology for wetland management are highlighted.

Today’s world is in the science and technology [5,6,7,8,9,10,11,12,21]. Everyone uses sensor technology, but none can know its impact in daily life [1,2,5,7,21], which identifies in higher study research because of active open eyes, self-voice, fixed GPS location, cell phone tower, and individual’s sensor devices. The processed wireless sensor networks affect biodiversity within fixed GPS location using active open eyes, noise, or beside sensor device, which is formed as ISNAB Effect. ISNAB implies the Impact of Sensor Networks towards Aquatic Biodiversity with climate change and environmental issues. To identify the impact of sensor towards aquatic biodiversity, the experiment was continued on dog, cat and fish species capturing showed within GPS distances to track with node sensor and distributed sensor, which illustrates in Figure 1 and Figure 2 successively. The tracking includes as below:

## 2. Criteria of Processed Wireless Sensor Networks

- (a) Individual species selection and tracking, (b) Group species selection and tracking (c) Fixed GPS selected location and tracking, (d) Satellite selected location and tracking.

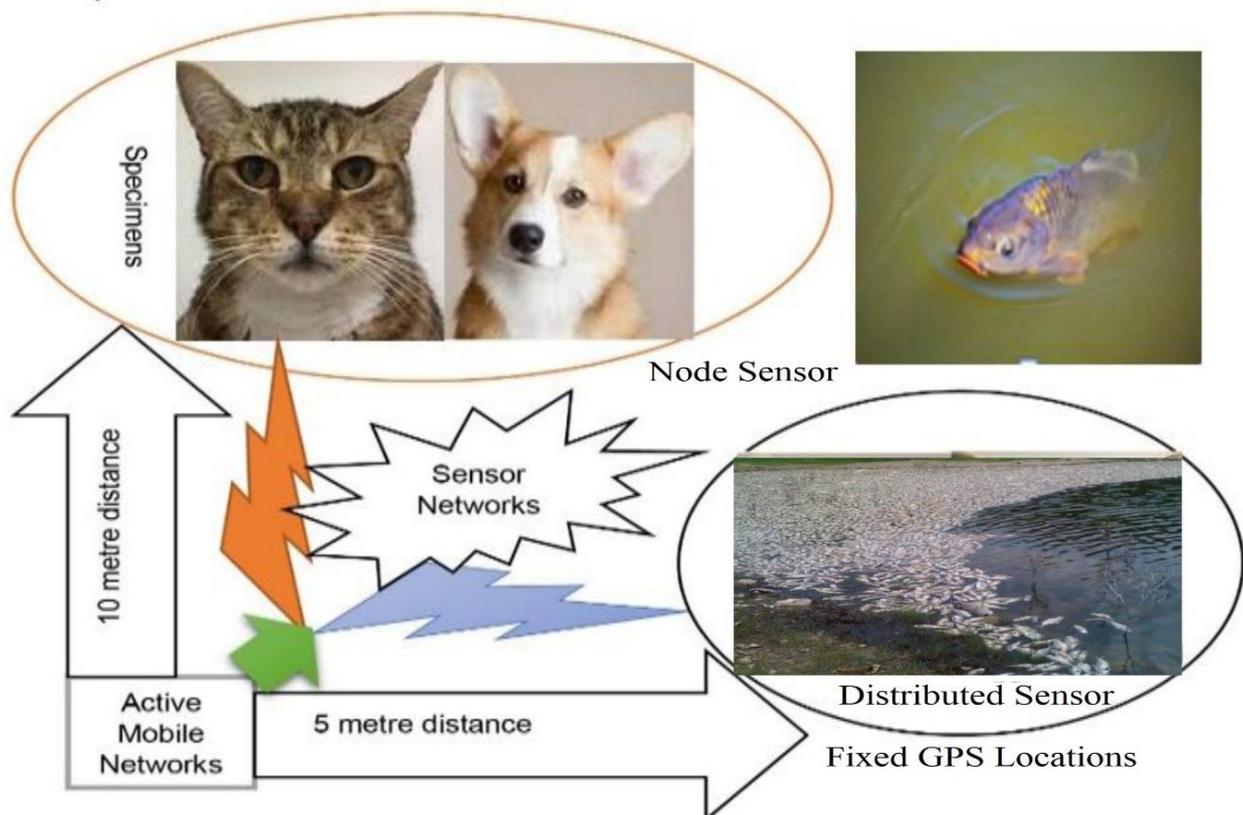


Figure 1. Species Capturing at GPS distance with Sensor Camera [9,11]

**ISNAB (Impact of Sensor Networks towards Aquatic Biodiversity) Process**

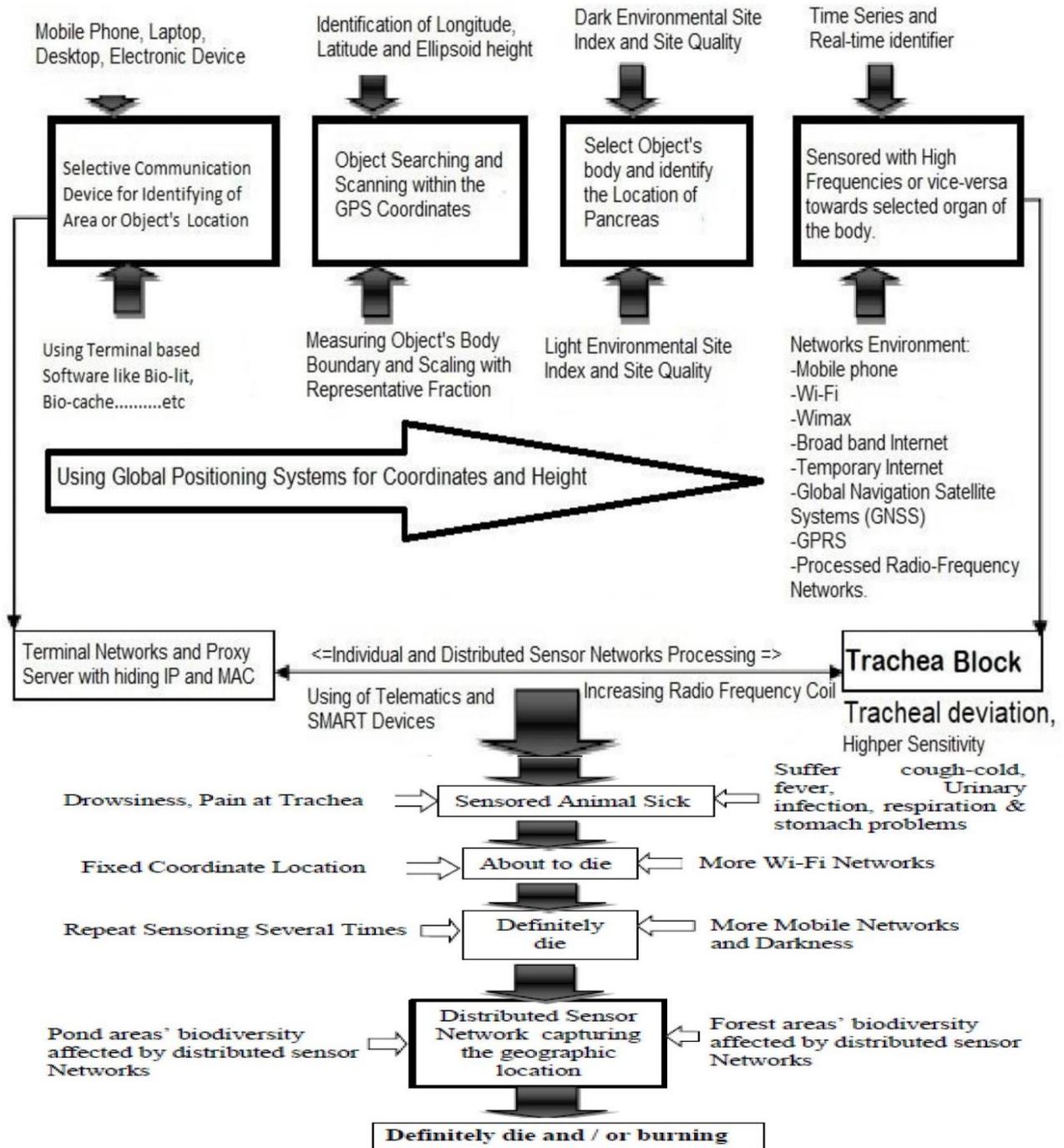
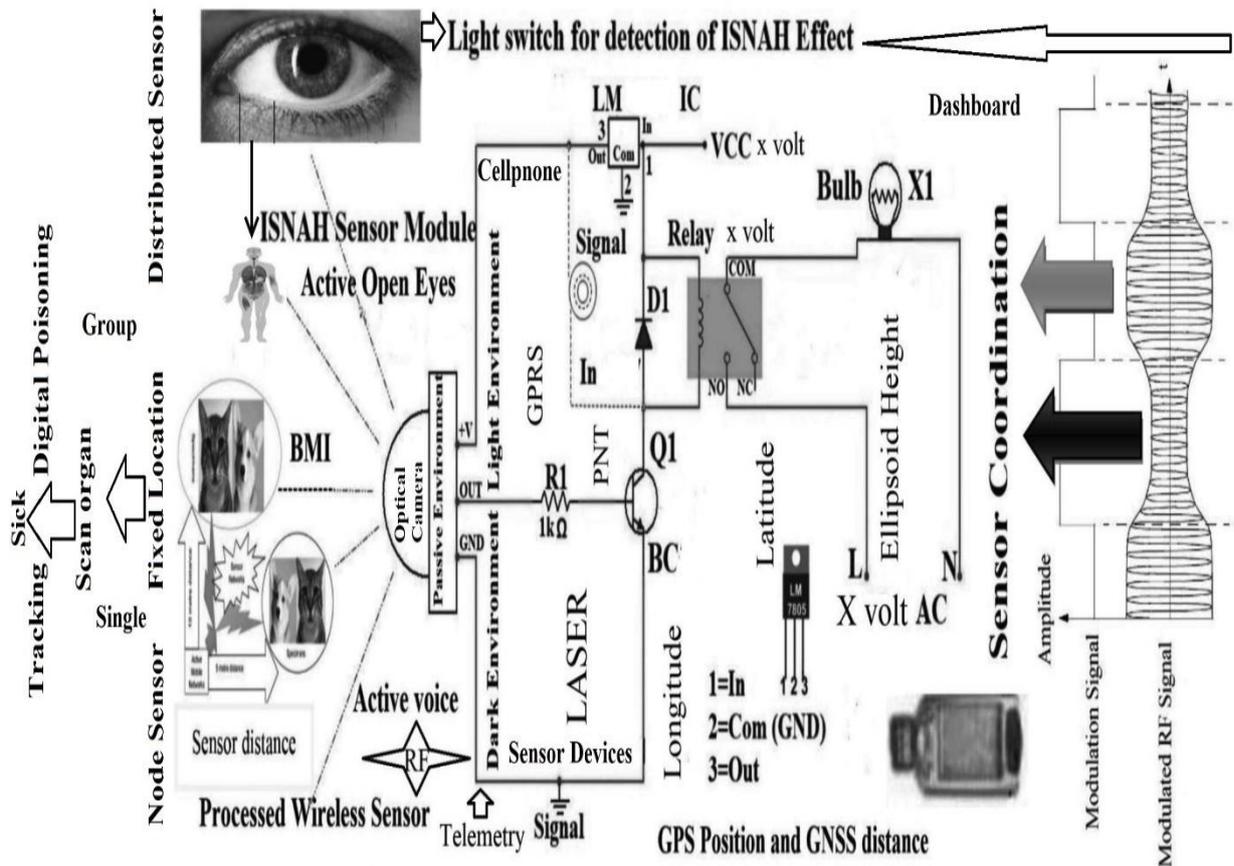


Figure 2. Impact of Sensor Networks towards aquatic biodiversity at wetland [21]

**3. Assessment of the Results Achieved**

The results relate with data analysis and interpretation. Quantitative and qualitative related aquatic conservation data were obtained through field observation, interviews, field surveys, focus group discussions, informal discussion, and lab experiment while secondary data were obtained from diverse sources. The study shows the aquatic

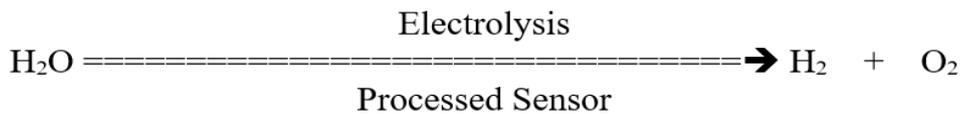
biodiversity-related rules and regulations amended were apex in Bangladesh from 2010 to 2020. The study represents the impact of processed sensor networks on aquatic biodiversity in the wetland to be compared to larger, medium, and smaller animals in a bright, dark, and optimum environment, facilitating the fluctuated network design and misuse of wireless sensor networks towards aquatic GPS locations, which as shown in Figure 3.



\* BMI= Body Mass Index, LASER= Light Amplification by the Stimulated Emission of Radiation, RF= Radio Frequency  
 GPS= Global Positioning System, GNSS= Global Navigation Satellite System, GPRS= General Packet Radio Service  
 PNT= Positioning- Navigation and Timing, ISNAH= Impact of Sensor Networks towards Animals and Human beings.

**Figure 3.** Impact of processed sensor networks wetland aquatic biodiversity

The system is active due to built-in sensor Telematics, GPS Sensor, LASER system, remote sensing software and high radio frequency devices, which works on sensor electro-lysis process as:



Processed water sensor separates hydrogen and oxygen due to presence of electrolysis. Hydrogen burns and oxygen help to burn. In this fixed GPS location, increase carbon-dioxide due to presence of CO<sub>2</sub> sensor. From the research, it identified the processed sensor technology blocks oxygen transmission, blood circulation and water flow in living cells. Because of blockage electron, the individuals suffer from acute respiratory distress syndrome (ARDS). After stipulated time, the individual died through processed node sensor and group of individuals died through distributed sensor according to BMI categories at dark and light environments.

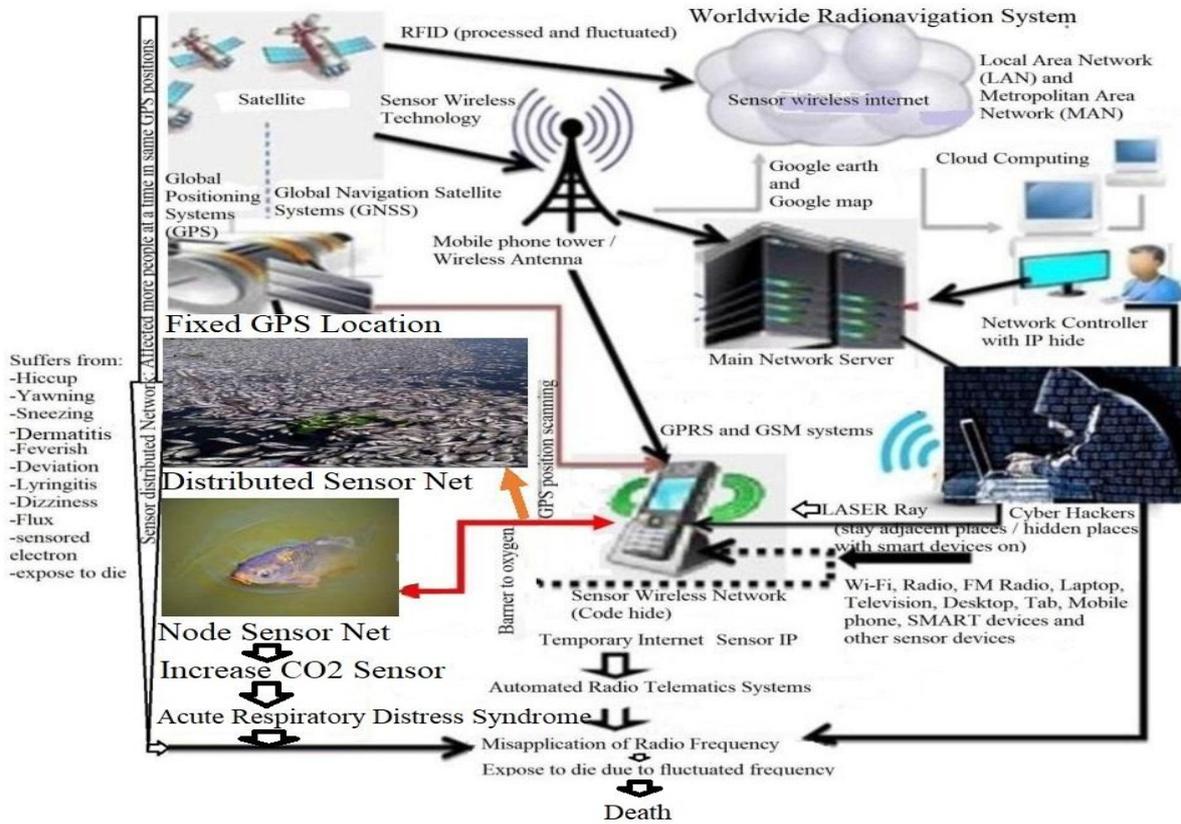


Figure 4. Schematic Capturing Process on the Misuse of Wireless Sensor Networks on Fish



Figure 5. Sensor affected fishes at fixed GPS locations

The study shows that Automated Radio Telemetry System is more effective in the dark than in light environment on aquatic sensing with digital poisoning. It was observed that in the dark environment, the examined aquatic animals could not breath properly after 15 and 7 minutes of exposure respectively. They fell asleep within 25 and 12 minutes respectively as they were sensed by RFID (Fig 4). Further adverse impacts are expected with longer exposure. During medication time, pond fishes felt pain at their tracheas/gills and other organs coupled with cold-coughing and fluctuated existing temperatures. The wireless sensor networks

transmitted also had caused pain in their tracheas/gills (Fig. 5). The use of sensor technology has also resulted in the society to protect aquatic animals in existing environment.

Approximately 64% of the respondents agreed on the development of aquatic biodiversity for managing the wetland at Sunamganj with secure peripheral sensor networks [19,21]. The research also found that the Tanguar Haor is at risk due to misuse of wireless sensor networks compared to other wetlands in the Sylhet Division. Scientific knowledge is indispensable in wetland resource management but it poorly identified such knowledge while various

performances are still below par [21]. The research is unique and represents the innovative idea to improve the existing wetland policy.

The study shows that biodiversity-related legislation amended was highest in Bangladesh from 2010 to 2020 with policy weight scoring 96% of Wetland Protected Areas [21]. The growth of visitors with sensor devices at wetland zone maximized at but in low on digital conservation services within the same period. This study represents the impact of sensor networks on aquatic biodiversity to be compared to larger and smaller animals in a bright and dark environment, facilitating the design and use of modular tags [21]. Through misuse of processed wireless sensor technology, a dark environment is effective due to loss of biodiversity than that of the light atmospheric condition [21]. These results reflect the importance of the conservation of aquatic biodiversity that the State provides. A scalable, modular and adaptable solution has been proposed with limited peripheral network systems for wetland biodiversity protection [2,21].

The research has been conducted at UNIMAS, Malaysia, and developed a formula, called “ISNAH Effect” (Impact of Sensor Networks towards Animals and Human beings). The formula is:

*“Because of the active sensor technology, every human, animal or object affects by the fluctuated frequencies of its movement through electromagnetic transmission within the boundaries of the body in the GPS position, and this effect is proportional to its weight and disproportionate to its GPS positions. As a result, the changing waves damage the person, animal or object and for recovery systems, each of them should change its existing location instantly.”*

#### 4. Major findings of ISNAB Effect

Four postulates identified from this ISNAB research, such as:

- (1) Any person, animal, object, environment, or climate of the existing area dies, damages, or burns in misuse of sensor technology within a fixed GPS location or distributed satellite position at a real-time sensor-organ.
- (2) The position of any person, animal, or object is known in light and darkness because of the individual’s active open eyes, speech, sound, adjacent sensor device and GPS fixed location.
- (3) Daily activities of the sensed individuals, animals or objects observe and record what they are doing or uttering in the dark and light at a certain distance with the help of sensor technology in the network and without network but fixed GPS location and GNSS (Global Navigation Satellite System) distances.
- (4) The targeted individuals or animals infected with various diseases and disease outbreaks through tracking in processed frequencies from sensor

technology. But if the person or animal closes its eyes tightly from the affected area and immediately moves to a new place with personal area network control unit (PANCU), wetland area network control unit (WANCU) devices or stays without a network zone and, it remains unaffected.

These effects are illustrated with photographs in Appendices in the paper.

#### 5. Develop 7R’s Policy for Wetland Management with Innovative Approach

From the study, it is identified that the 7R’s Policy is essential for wetland aquatic biodiversity conservation [19,20,21,32] with ISNAB (Impact of Sensor Networks on Aquatic Biodiversity). Here includes seven parameters rule indicating first letter capital “R” as shown in Figure 4. such as (i) Reformation integrated policy in connection with forest policy, environmental policy, and relevant other policies, (ii) Restoration wetland, (iii) Replacement Invasive Alien Species (including plant invasion and wildlife invasion), (iv) Reforestation with biodiversity targets indicates on afforestation for forestation on the priority of Aichi Biodiversity Targets 2020, (v) Reintegration of communities commitment (i.e. they are mainly local, indigenous, visitors and national communities as well as regional and global communities), (vi) Reuse secure sensor technology i.e. application of digital technology and biodiversity information systems, (vii) Recover valuable resources (i.e. using secure information management systems for the protection of natural resources), which are shown in Figure 6. The research explores for update wetland policy, UNCLOS (United Nations Convention on the Law of Sea) declaration, Clearing House Mechanism of CBD (Convention on Biological Diversity) and national biodiversity policy in connection with secure sensor technology. The wetland management policy integrates with United Nations General Assembly (UNGA), UNCLOS, CBD, IUCN [33,34,35], IPBES, International Centre for Trade and Sustainable Development (ICTSD), American Society for International Law (ASIL), United Nations Fish Stock Agreement (UNFSA), Safety of Life at Wetland (SOLAW), Institute of World Wide Radio Navigation System (IWWRNS), Bangladesh Forest Department, Transparency International Bangladesh (TIB), Association for Land Reform and Development, (ALRD), Bangladesh Environmental Lawyer Association (BELA), Bangladesh Institute of Planners (BIP), Centre for Environmental and Geographic Information Service (CEGIS), Norwegian Institute for Nature Research (NINA) [29] and Wetland Area’s Partner NGOs. Policy integration includes wetland policy, environmental, forest, agriculture and ICT policy for advancement of Biodiversity Protection.

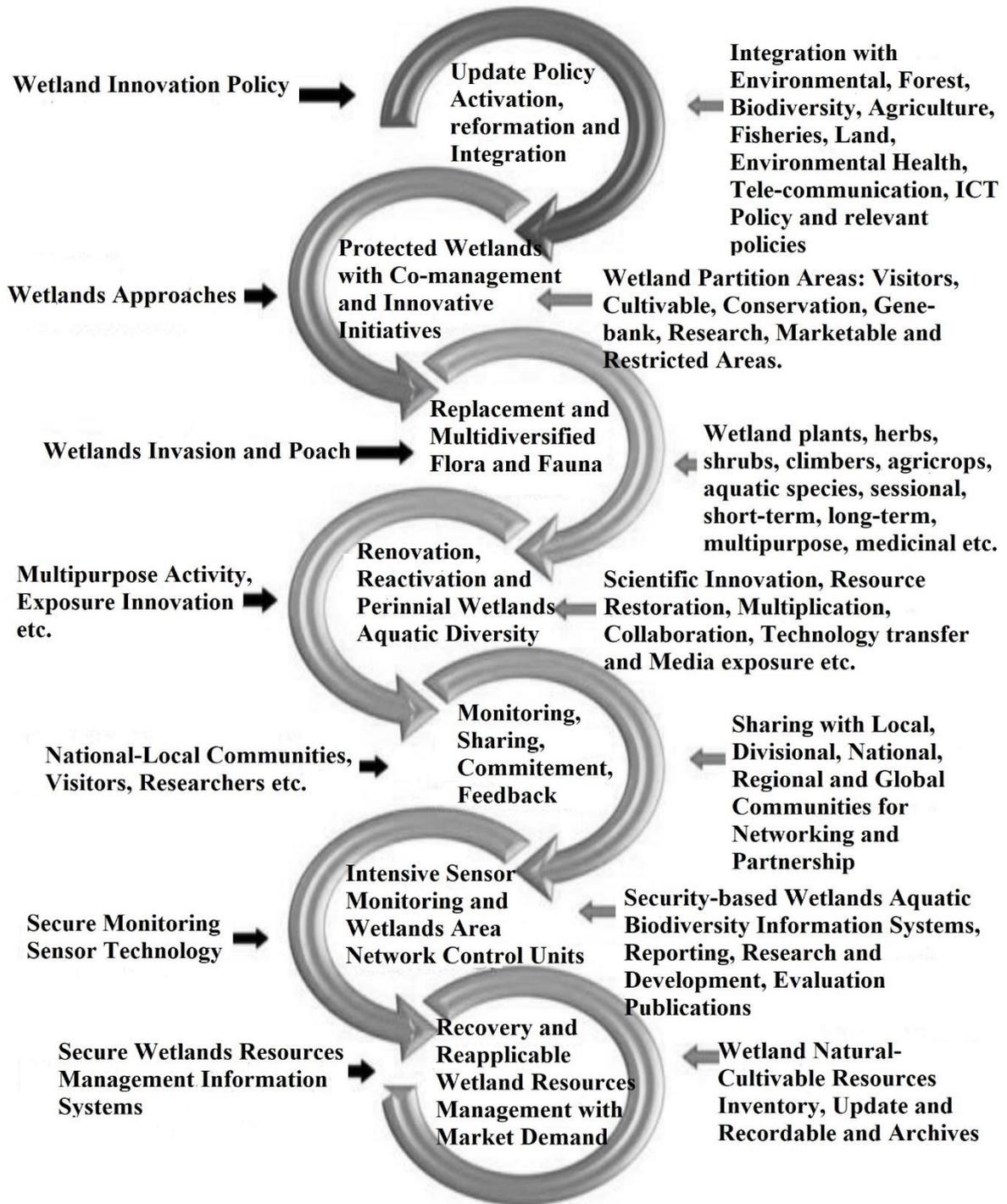


Figure 6. Wetland Innovation Approach

## 6. Potentiality

Wetlands are one of the world's key natural resources [36]. But these natural resources destroyed due to missing of sensor technology. Today's wireless sensor technology and market economy enter with their own 'laws' against nature and feeling proud to be able to win through ISNAB commercialising. Scientific Technological knowledge of ISNAB is indispensable for aquatic biodiversity

management in wetland and aquaculture farm areas. Key aquatic conservation tools provided at the Tanguar Haor and its challenges with gaps in policies on using wireless sensor networks for wetland management are highlighted. The study represents the impact of sensor networks on aquatic biodiversity to be compared to larger, medium and smaller animals in a bright, dark and optimum potential environmentally. The ISNAB will enhance conservation network connectivity and security in wetland protected

areas and corridors as well as improve commercialization on aquatic biodiversity perspectives that the State provides. It can also enhance security systems for aquaculture farm managers, field officers, visitors, scientists, researchers, wetland co-management team leader and other relevant stakeholders. The research also found that the Tanguar Haor is in risks due to misuse of sensor networks compared to other wetlands in Sylhet division. Experts have tried to

implement ways of reducing this impact by encouraging farms to go competitive market with digital conservation through alternative potentiality. Large potential on conservation technology uses including learning, research, business and access benefit sharing to achieve specific goals related to national fisheries rules and regulations Aichi Biodiversity Targets 2020 and Sustainable Development Goals 2030.

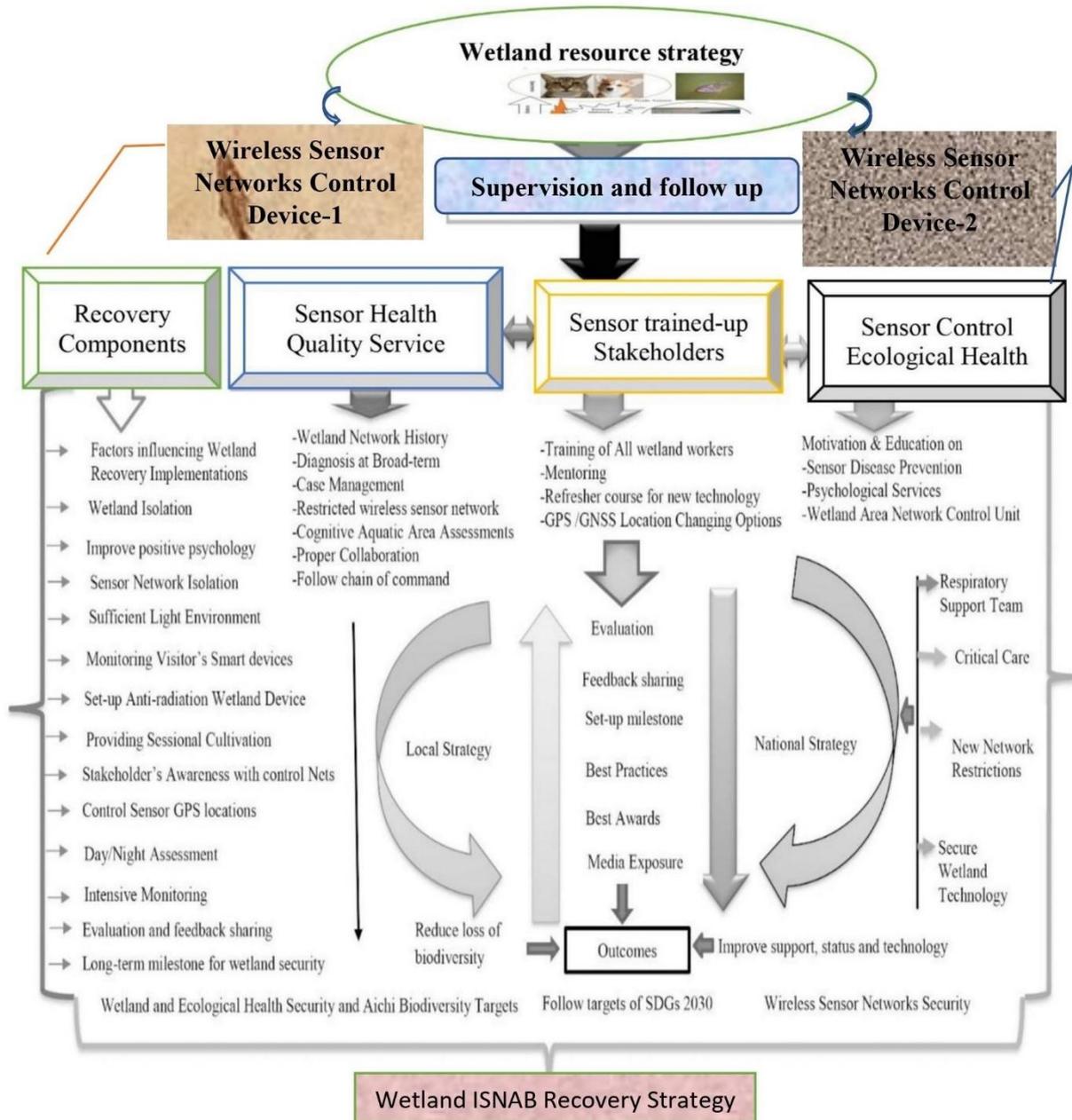


Figure 7. Recovery Model from ISNAB Effect towards Wetland Aquatic Biodiversity

### 7. Novelty

The novelty of this research is unique in the entire world. Quick sensor network affected towards aquatic biodiversity. Disseminate the distributed sensor network to the whole Animal Farm / Fish pond through individual or group wise.

Large animals are more prone to be negatively affected by sensor telematics network because of peripheral congested environment and splitting high frequency with joining stages. These sensor networks use with GPS control unit. The radio frequencies of telematics (500 to 999 mHz and above) were detected using Automated Radio Telemetry System within

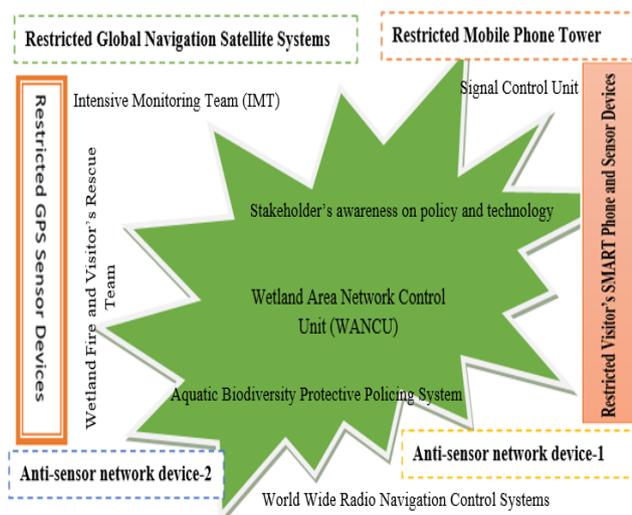
the 5- and 10-meter distances. Exposure high RFID (radio frequency identification) technology detects to die individual or group aquatic biodiversity.

## 8. Recovery and Restoration

For recovery and restoration of wetland innovation approach enhances with diversified parameters [2,9,10,11,12,13,14,15,16,17,18], which illustrates in Figure 7. The wetland resource strategy framework contains different components including (i) recovery components, (ii) sensor health quality services, (iii) sensor trained-up stakeholders, and (iv) sensor control ecological zone.

## 9. Innovative Control Approach

Tangour haor is a unique wetland ecosystem in Bangladesh that has been recognized as an area of national and international importance and attention [37]. For global recognition, every State set-ups wetland area network control unit (WANCU) according to national wetland policy and sustainable development goals 2030. The WANCU consists of (i) anti-sensor network devices, (ii) Restricted GPS sensor devices, (iii) Restricted GNSS devices, (iv) Restricted Mobile Phone Tower, (v) Restricted visitor's SMART phone and sensor devices, which as shown in Figure 8. Wetland security forces must wear anti-radiation sunglasses, anti-radiation body control device, close circuit spectacles and use dynamic LASER gun for protection of aquatic biodiversity. During monitoring period, no mobile phone/wireless kit, no uttering words and no electronic devices consists in each security force. Community-based management enhances this monitoring linking with local people, visitors, researchers and other stakeholders in wetland zone [27].



**Figure 8.** Innovative Model for Protection of aquatic biodiversity in wetland

## 10. Challenges

There are several challenges for setting-up innovative sensor network approach at wetland area for protection of aquatic biodiversity, such as (i) misusing of innovative technology due to lack of dynamic security, (ii) Voice coding through misusing of integrated artificial intelligence and internet of everything, (iii) produce sensor diseases like CASID (Common Acute Sensor Infections and Disorders), (iv) aquatic biodiversity crime, (v) sensor earthquake and tsunami, (vi) Infodemic message and interface for creating phobia at wetland area, (vii) visitors' misusing of wireless sensor nano-technology, (viii) expansion of innovative technology without proper security at wetland areas. Because of processed wireless sensor networks, wetlands burn in a fixed GPS location with losses of aquatic biodiversity. But misusers expose to media as environmental problems or climate change or boating related deaths or poisonous or venomous etc. Actually cyber hackers misuse the innovative sensor technology to loss of biodiversity within a fixed GPS location. The rationalized generations involve in good or harm activities to any human in the world through wireless sensor networks through hidden codes [28]. They are scattered among different groups of society and are arbitrarily abusing it [9]. Some stakeholders stay in superstition and some are lack of sensor knowledge. Some scientists remain in mysterious in expansion of innovative nano-sensor technology. According to Transparency International Bangladesh (TIB), a tripartite syndicate is responsible for wetland filing violation in Bangladesh [24]. Moreover, global sea level linking wetland expected to rise by 40 inches (one meter) or more by century's end [25]. Healthy wetlands can help solve the global challenges of climate change, human health, biodiversity and water security [30]. Government of Bangladesh (GoB) has taken a massive plan to recover wetlands for conservation of aquatic biodiversity [26].

## 11. Conclusions

The study assessed that the existing conservation policy instrument is inadequate for wetland aquatic biodiversity protection in Bangladesh and other countries due to a lack of secure networks. In addition, the study identified issues that should be the main priorities for policy integration, implementation, and improvement with the technological array to foster wetland's management objectives for ensuring sustainable conservation practices. The improvement of wetland policy instrument assessment has been sluggish, compared with several other conservation tools, and various performances are still below par. Scientific knowledge is indispensable in wetland biodiversity management but such knowledge is poorly identified. The input uniqueness of research findings should influence the assessment of the conservation policy instruments used to deal with them. If an assessment of such instruments is allowed without due to the

reflection of information implicated, there is huge jeopardy of recognizing only trifling impacts and near to the ground effectiveness. However, careful assessments can facilitate future research to make better conservation decision-making in the creation of environmentally fundamental and secure innovative technological instruments. Lastly, the study suggests future research trajectories of a new collaborative alternative approach to drive the practical agenda and supports linking with Ramsar Wetland Conservation Policy, National Wetland Policy, Aichi Biodiversity Targets, and Sustainable Development Goals 2030.

## 12. Declarations

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### *Data Availability*

The data are being used to support the findings of this research work are available from the corresponding author upon request.

### *Competing Interests*

The authors declare no potential conflict of interests in this research work.

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## Appendices

Wetland biodiversity and relevant others are being destroyed or killed by cyber hackers through misuse of processed wireless sensor networks within GPS locations. These cyber hackers are a group of students, visitors, digital killers, bloggers, strangers, newcomers, adjacent shalterers, supporters, support assistant, fugitive, plotter or syndicate introducer, news builders, cameraman, SMART recognizer, photographer, changer group, renters, surveyers, sudden communicators, suspected figured person and peculiar person etc.

## ACKNOWLEDGEMENTS

### **Cyber Hackers were killed fish in Tanguar Haor, Bangladesh**





**Fig: A lot of fish were killed by cyber hackers in USA**  
**Fishes were killed by Cyber Hackers in Australia**



**Massive dead fish in China, were occurred by Cyber Hackers**

**220,000 pounds of poisoned dead fish scooped up in pollution-plagued China**



**Dead Fish in Cyprus, were occurred by cyber hackers**



### Cyber Hackers were killed fish in Indonesia



### Fishes were killed by Cyber Hackers in Florida, USA

wsj.com/articles/photos-red-tide-brings-unwanted-crowds-to-florida-coast-1534375991

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**Photos: Red Tide Brings Unwanted Crowds to Florida Coast**  
Naturally occurring stench has caused Gov. Scott to declare a state of emergency for seven counties  
Aug 15, 2018 7:33 pm ET

RECOMM My 3 Star Win Alien Go to Settings to NBA on It

### Cyber Hackers were killed fish in Iraq

en.rfi.fr/wire/20181103-thousands-carp-die-mysterious-circums

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**Thousands of carp die in mysterious circumstances in Iraq**  
By AFP  
Issued on 03-11-2018 • Modified 03-11-2018 10:03:12

An Iraqi boy clears dead fish floating on the Euphrates River near the town of Saddat al-Hindiya, November 2, 2018.  
AFP

Activate Win

**Dead Fish Massacre in China, were occurred by Cyber Hackers**

abcnews.go.com/International/thousands-dead-fish-wash-tianjin-shores-deadly-explosions/sto...

abc NEWS VIDEO LIVE SHOWS 2020 ELECTIONS

**Thousands of Dead Fish Wash Up Along Tianjin Shores After Deadly Explosions**

By AVIANNE TAN Aug 20, 2015, 6:02 PM ET

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Large quantities of dead fish are seen on a beach near the site of the massive blasts in Binhai New Area in Tianjin, China, Aug. 20, 2015.

**Cyber hackers were killed fish in Myanmar through misusing telematics**



**Cyber Hackers were killed fish in Philippines misusing Telematics**



**Cyber Hackers were killed fish misusing Telematics in Philippines (Massacre dead)**



**Cyber Hackers were killed fish in Sri Lanka through misusing Telematics**



**Cyber Hackers were killed fish massacre in Sri Lanka**



**Cyber Hackers were killed star fish through misusing Telematics**



### Cyber Hackers were killed fish at UNIMAS Lake, Malaysia



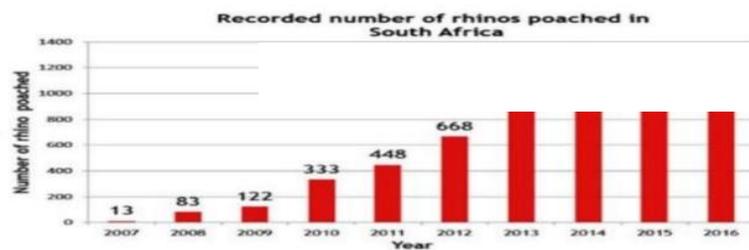
[https://www.savetherhino.org/rhino\\_info/poaching\\_statistics](https://www.savetherhino.org/rhino_info/poaching_statistics)

**In just a decade, more than 7,245 African rhinos have been lost to poaching. Will a recent decline in South African poaching mark a new dawn for rhinos?**

Donate

In February 2017, the Department for Environmental Affairs released poaching statistics for 2016, showing a 10.3% decline in rhino poaching as compared with the previous year. There's no reason to celebrate: 1,054 rhinos killed in South Africa alone during 2016 works out nearly three rhinos being killed every day. And while poaching is down in Kruger National Park, it is significantly up in other provinces, particularly KwaZulu-Natal.

Furthermore, there are continuing and worrying signs that poaching gangs are increasingly moving beyond South Africa's borders, gaining a foothold in other African countries – many of which have less resources available to protect wildlife. We're certainly not out of the woods yet.



[url: https://www.savetherhino.org/rhino\\_info/poaching\\_statistics](https://www.savetherhino.org/rhino_info/poaching_statistics)

### Cyber hackers were killed fish at Netrokona, Bangladesh





Fig: Crabs were killed by cyber hackers with Technology

Cyber Hackers were killed star fish misusing Telematics (Radio Frequency)



Fig: Doves were killed by cyber hackers through Telematics in Italy

**Cyber Hackers were killed star fish by misusing Telematics**

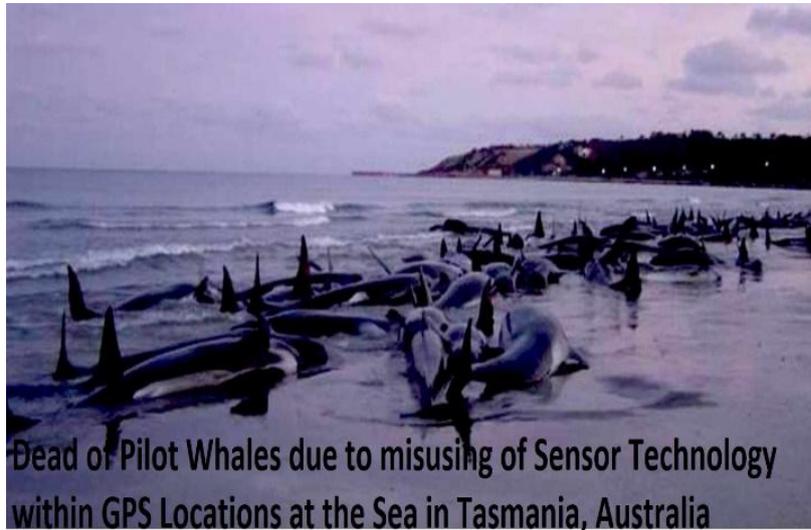


**Cyber Hackers were killed a lot of cows through misusing Telematics within certain GPS position.**



**Cyber Hackers were killed fish massacre in Vietnam through misusing Telematics**





**Cyber Hackers were burnt forest resources in Australia through misusing Telematics**



**Cyber Hackers were burnt building with misusing Telematics**



### Cyber Hackers were burnt building in France through misusing Telematics

thelocal.fr/20190815/500-firefighters-battle-blaze-in-southern-france-carcassonne-aude

UPDATED: Strong winds fan wildfire raging in southern France

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- fire
- wildfires
- forest fires
- aude
- carcassonne

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### Cyber Hackers were burnt Museum in Brazil through misusing Telematics



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### Cyber Hackers were killed massacre chickens through misusing Telematics, but mentioned bird flu



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Activate Wind  
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**Cyber Hackers were collapsed bridges through misusing Telematics**



**Cyber Hackers were burnt big buildings with Telematics but mentioned short circuit.**



**Cyber Hackers were killed chickens misusing Telematics but mentioned as bird flu illegally.**

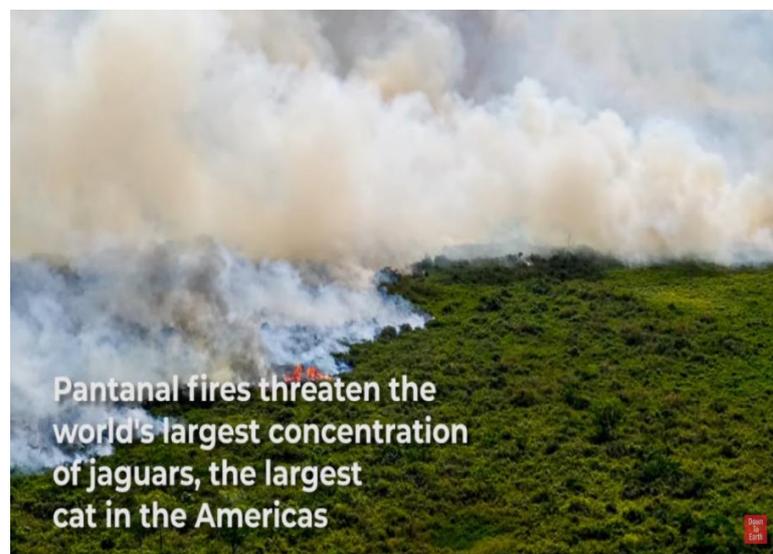
Save the life for present and future generations



**Cyber Hackers were burnt big building in Bangladesh through misusing Telematics**



Figure: Species affected in wireless sensor network at Pantanal wetland, Brazil



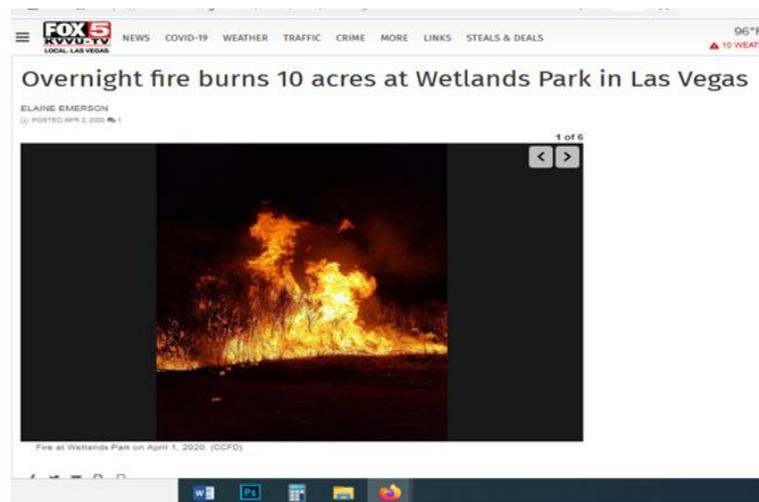


URL: <https://www.youtube.com/watch?v=ud6GUg9tM1Y>

### Ballona Wetlands Fire: The Ecological Story



URL: <https://patch.com/california/marinadelrey/ballona-wetlands-fire-ecological-story>



URL: [https://www.fox5vegas.com/news/local/overnight-fire-burns-10-acres-at-wetlands-park-in-las-vegas/article\\_3841fb98-74dc-11ea-a176-73a7cf64a11e.html](https://www.fox5vegas.com/news/local/overnight-fire-burns-10-acres-at-wetlands-park-in-las-vegas/article_3841fb98-74dc-11ea-a176-73a7cf64a11e.html)



URL: <https://www.youtube.com/watch?v=6MGMkhXecUE>

#### Fire burns through 45 acres at Clark country Wetland Parks



URL: <https://news3lv.com/news/local/gallery/fire-at-clark-county-wetlands-park-burns-at-least-4-acres-blm-requested?photo=2>

Punjab, INDIA: Large number of fishes found dead in Beas river, Hindustan Times, Amritsar | By Surjit Singh

 Hindustan Times, Amritsar | By [Surjit Singh](#)  
UPDATED ON MAY 17, 2018 11:25 PM IST



URL: <https://www.hindustantimes.com/punjab/punjab-large-number-of-fish-found-dead-in-beas/story-0XCDTbfqUUB0h2evGF9qskN.html>

[https://www.mongabay.co.id/2016/05/14/mau-lihat-foto-foto-dan-video-jutaan-ikan-mati-di-danau-toba-simak-ini/?fb\\_comment\\_id=991564104232281\\_991714737550551](https://www.mongabay.co.id/2016/05/14/mau-lihat-foto-foto-dan-video-jutaan-ikan-mati-di-danau-toba-simak-ini/?fb_comment_id=991564104232281_991714737550551)



<https://news.mongabay.com/2016/05/millions-fish-die-suddenly-indonesias-giant-lake-toba/>

Mongabay Series: [Indonesian Fisheries](#)

### Millions of fish die suddenly in Indonesia's giant Lake Toba

by [Ayat S. Karokaro](#) on 11 May 2016



<https://www.leisurepro.com/blog/ocean-news/3-massive-fish-dieoffs/>



<https://www.earthtouchnews.com/oceans/oceans/what-causes-massive-fish-die-offs/>  
 What causes massive fish die-offs? By [David Moscato](#) November 16 2016



## At least 40 dolphins die in area hit by Mauritius oil spill

Reuters

Fri 28 Aug 2020 14:49 BST

**Causes of death yet to be confirmed as witness describes last moments of one dolphin**



▲ The carcass of a dolphin that washed up on the shore at Grand Sable, Mauritius, on Wednesday. Photograph: Reuters

URL: <https://www.theguardian.com/world/2020/aug/28/at-least-40-dolphins-die-area-hit-mauritius-oil-spill>

[Mass dolphin deaths off France, UK likely due to trawling | Environ  
 marine mammals](#)

<https://www.dw.com/en/mass-dolphin-deaths-off-france-uk-likely-due-to-trawling/a-39683636>

**Mass dolphin deaths off France, UK likely due to trawling**



© Claire Lewis/Cornwall Wildlife Trust Marine Stranding Network

**Namibia launches probe after 86 dolphins die on beach, 10 Mar 2020**

URL: <https://www.trtworld.com/life/namibia-launches-probe-after-86-dolphins-die-on-beach-34434>



**Starfish galore! Thousands of 5-legged creatures pop up along SC shoreline**

By Hannah Strong, June 29, 2020 12:57 PM, The Sun News. Updated June 29, 2020 02:46 PM



URL: <https://www.myrtlebeachonline.com/news/local/article243867562.html#storylink=cpy>

**Thousands of starfish found washed ashore on UK beach**

Nature, CGTN, 2018-11-29 16:10 GMT+8

[https://news.cgtn.com/news/3d3d414e7a51544f30457a6333566d54/share\\_p.html](https://news.cgtn.com/news/3d3d414e7a51544f30457a6333566d54/share_p.html)



## Thousands of starfish strand on Dutch beach

December 29, 2016, <https://www.dutchnews.nl/news/2016/12/thousands-of-starfish-strand-on-dutch-beach/>



## Why thousands of starfish have washed-up dead-on beaches after freezing UK weather



Thousands of starfish have washed up on beaches in Kent following Storm Emma. Photo: Lara Maiklem/London Mudlark. URL: <https://inews.co.uk/news/uk/thousands-starfish-washed-dead-beast-east-132393>

### INDIAN RIVER LAGOON

## More Florida manatees have died this year than all of 2020, most in Indian River Lagoon

Max Chesnes, Treasure Coast Newspapers

Published 1:24 p.m. ET Apr. 14, 2021 | Updated 3:48 p.m. ET Apr. 14, 2021

[View Comments](#)



A dead manatee was found floating on its back in a canal at the Manatee City Marina in Shallop on Monday, March 22, 2021, by resident Julia Sansovere, who reported it to the Florida Fish and Wildlife Conservation Commission. Its cause of death is unknown. PHOTO PROVIDED BY JULIA SANSOVERE

URL: <https://www.tcpalm.com/story/news/local/indian-river-lagoon/2021/04/14/florida-manatee-deaths-2021-exceed-2020-already-seagrass-loss-cited/7204332002/>

**Many shark dead, By the Platypus September 21, 2020**

URL:<https://theplatypusnews.com/2020/09/21/steven-sealberg-to-re-release-jaws-with-humans-as-shark-eating-baddies/>



**India: More whales die in Tamil Nadu**

Published, 14 January 2016, URL: <https://www.bbc.com/news/world-asia-india-35309225>



<https://theshillongtimes.com> › 2021/05/13 › death-of-el... ▾

**death of elephants bamuni pahar nagaon - The Shillong Times**

May 13, 2021 — Home · NATIONAL · 20 elephants of a herd found dead in Assam hill; death of elephants bamuni pahar nagaon. Return to "20 elephants of a ..."



Tsunami in Japan: A Misuse of Wireless Sensor Technology with GPS and GNSS Locations



Shark was killed by cyber killer with processed wireless sensor technology in Phillipines

URL: <https://en.prothomalo.com/environment/brazil-fires-threaten-worlds-largest-wetland>



Smoke billows from a fire in an area of the Amazon jungle which burns as it is cleared by loggers and farmers near Porto Velho, Rondonia State, Brazil, 16 August 2020.Reuters. It is wrong message provided by media. According to my research, it is misuse of wireless sensor technology occurred by cyber hackers within Fixed GPS location.

URL: <https://www.prothomalo.com/bangladesh/district/রূপে-গুণে-অনন্য-টাঙ্গুয়ার-হাওর>



Cyber hackers sink the moving boats through motion sensor waves, killing many passengers and fishermen.

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