



**NDMA**

NATIONAL DISASTER  
MANAGEMENT AUTHORITY

# **Disaster Statistics of Maldives**

**2022**

## Executive Summary

The National Disaster Management Authority (NDMA) of the Maldives collects data on damage-related incidents, hazard incidents, response activities, mitigation and adaptation activities, and financial assistance provided in response to hazardous events. This publication presents statistics on hazards and disasters in the Maldives in 2022 reported to the NDMA.

In 2022, there were documented cases of surges and weather-related events regarding monsoonal shifts occurring in May, July, and August.

In 2022, a total of 128 incident cases were reported to the National Disaster Management Authority. The most common hazards reported to the NDMA are fire incidents, contributing 41%, and surges, contributing 28%. The majority of hazards were reported by Male' Atoll (35%), Gaaf Dhaal (9%), Thaa (8%), and Haa Dhaal Atoll (8%). A total of 171 households and 62 islands were exposed to different hazards in 2022. The majority of incident cases were reported in the month of July. The occurrence of hazards by islands identified that the most hazard events were reported from the capital city Male' (78%), HDh. Kulhudhuffushi (12%), and Hulhumale (10%). Government financial assistance was provided the most to the fire incident cases.

We acknowledge that there may be events that were not reported or reported to institutions other than the NDMA and hence not represented in this report. Agricultural hazards and tourism-related hazards are reported directly to the respective institutions. Damage and loss need to be quantified, and data on affected persons, missing persons, injured persons, and mortality needs to be disaggregated by gender, age, and for vulnerable populations. An integrated system of hazard reporting is needed to portray the big picture of disasters in the Maldives.

## Contents

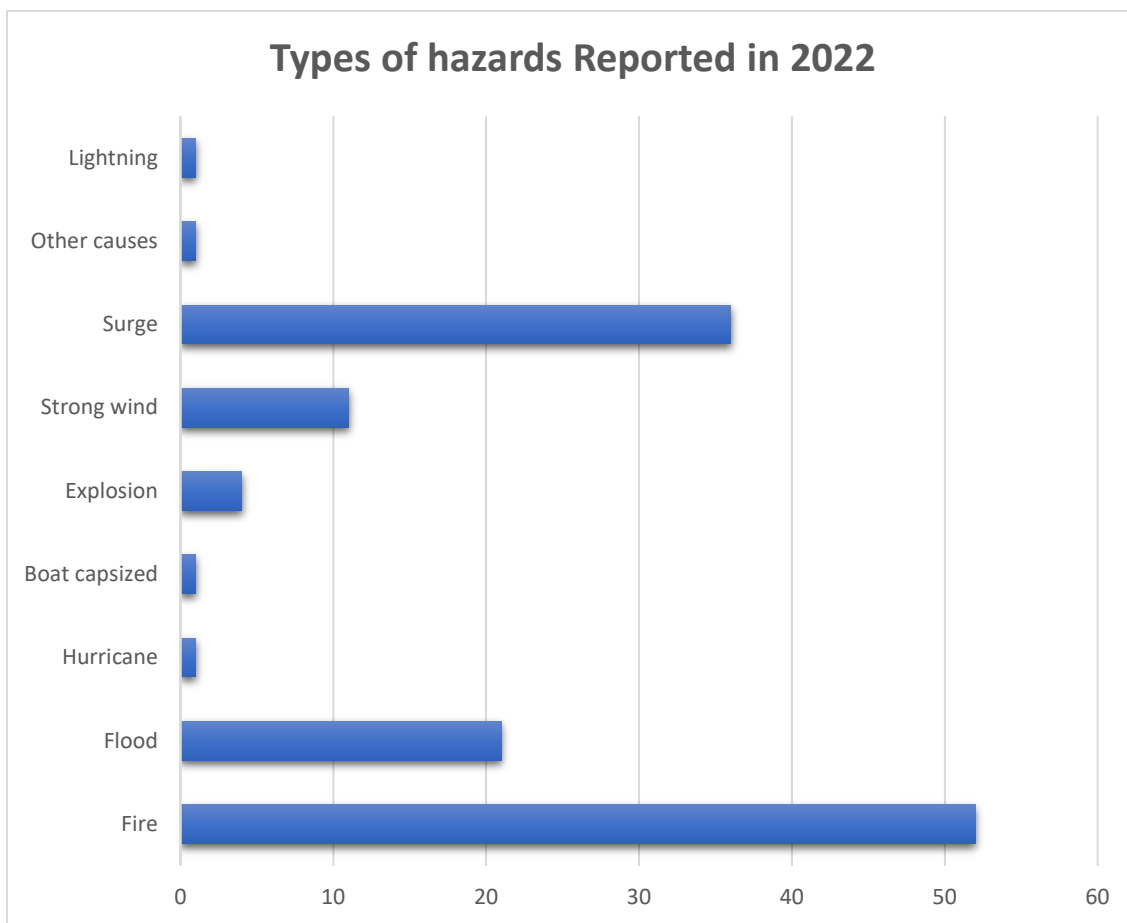
<b>Executive Summary</b> .....	2
1. Occurrence of hazard .....	4
2. Number of Incidents by Atoll .....	5
3. Number of Incidents by Month.....	6
4. Number of households affected by hazard .....	7
5. Number of Incidents by Island .....	8
6. Number of reported cases from surges .....	9
7. Number of reported fire incident cases from atoll .....	10
11. Challenges and Recommendations .....	14
11.1 Challenges .....	14
11.2 Recommendation.....	14
Conclusion.....	14

## 1. Occurrence of hazard

The data collected by the NDMA in 2022 highlights the varied nature and frequency of hazards experienced during that year. The incidents reported encompassed fires, floods, cyclones, boat sinkings, explosions, accidents, strong winds, surges, and lightning strikes.

A total of 128 incidents in 19 atolls were reported to the NDMA. The below graph shows the number of incidents by type.

figure 1; Type of Hazards reported to NDMA

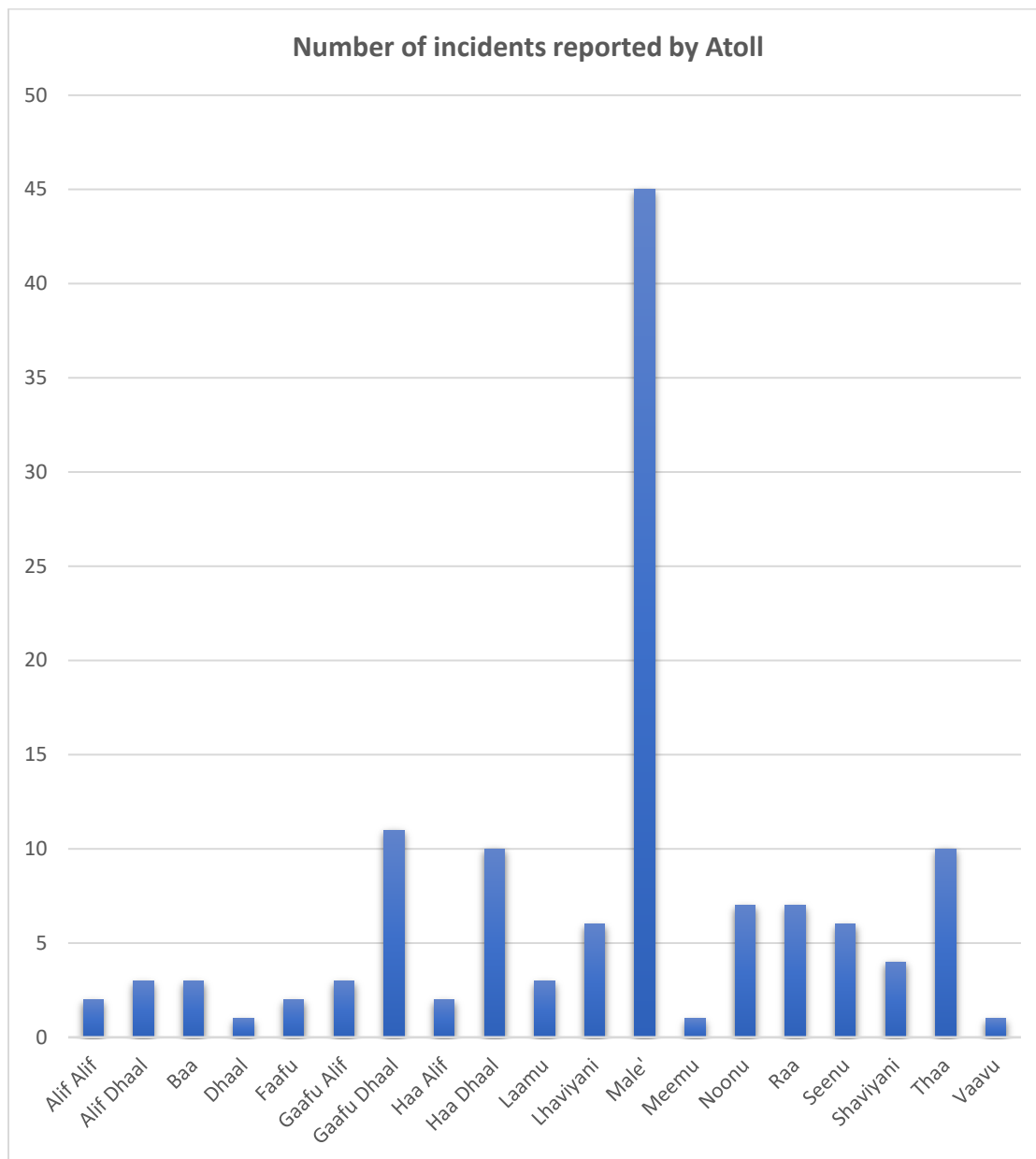


Fire is reported as the most frequently occurring hazard with 53 incidents, followed by surge with 36 incidents. Floods have occurred 21 times, while strong wind and explosions have each occurred 11 and 3 times, respectively. There has been one incident each of a cyclone, a boat sinking, and lightning. 1 case has been reported as "other causes," as the report was of the collapse of a boundary wall during road development.

## 2. Number of Incidents by Atoll

It can be observed that Male' atoll has reported the highest number of incidents with 45 in total, followed by Gaafu Dhaal atoll with 11 incidents. Other atolls have reported a range of incidents, varying from 1 to 10. Below graph Shows number of Incidents reported by Atoll.

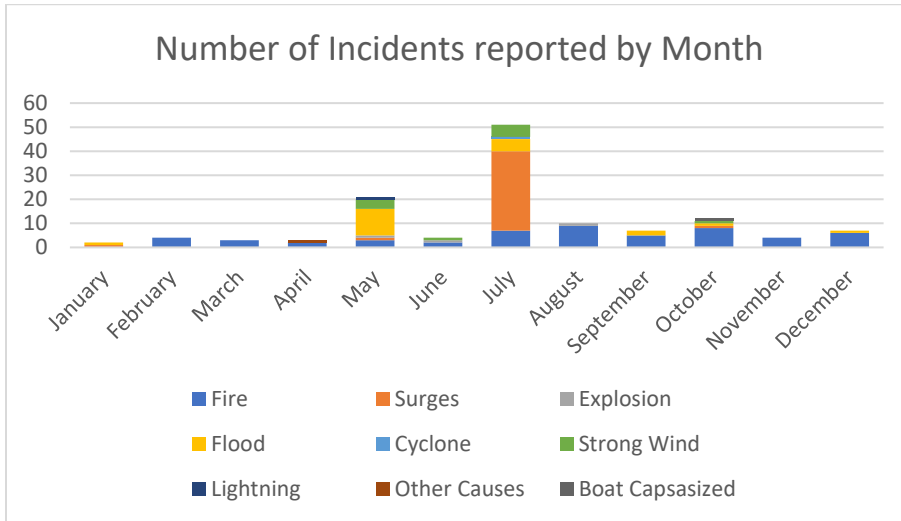
figure 2; Number of incidents reported by atoll



### 3. Number of Incidents by Month

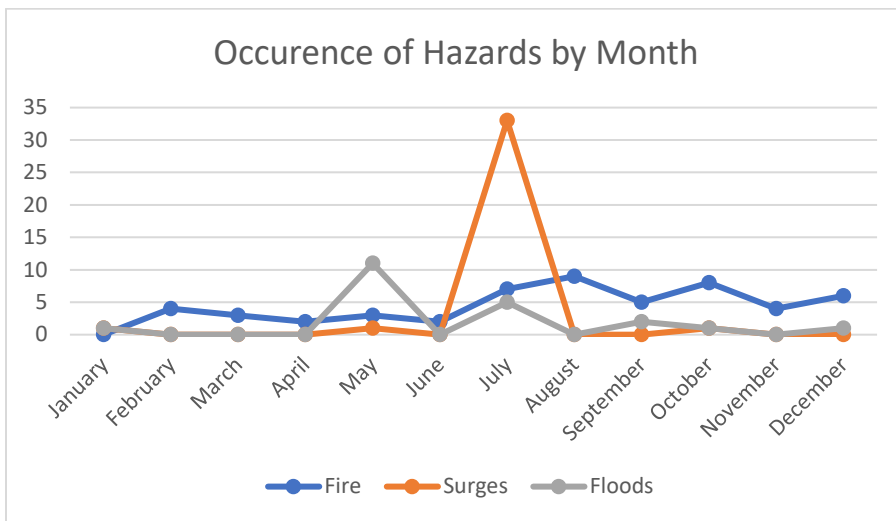
From the available data, it shows that more Incidents are reported during the month of July. Out of 128 Incidents reported, 51 (39.84%) Incidents are reported during July followed by 21 (16.41%) in May. The below graph shows the distribution of reported cases by month.

figure 3; Number of incidents reported by month



Among the three most reported Hazards, Surges are more common during July. While Floods are peaked during May, Significant number of floods are also being reported during July. Fire Incidents do not show a significance to month however the available data does show a minor increase during Midyear. The graph below shows the occurrence of three main hazard by Month.

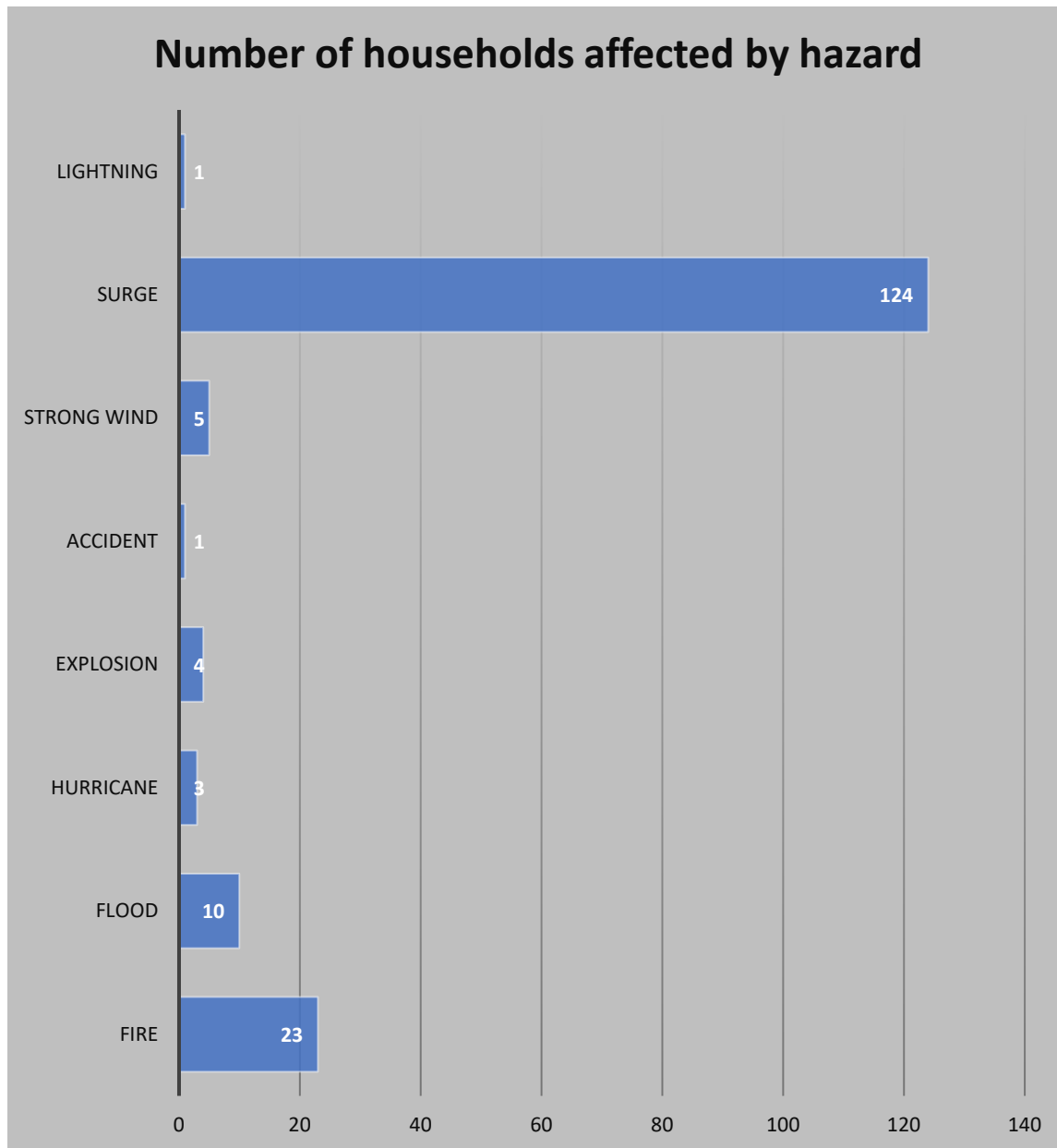
figure 4; Number of hazards reported by month



#### 4. Number of households affected by hazard

In the records provided, a total of eight distinct incident categories were documented by the NDMA during the year 2022. These incidents collectively impacted a sum of 171 households within the same timeframe. Notably, among the entirety of incident cases, surges exhibited the most considerable influence on households, with fire incidents ranking as the subsequent leading cause of household-reported occurrences as reported by the NDMA.

figure 5; Number of households affected by hazard



## 5. Number of Incidents by Island

From the available data shown below there are 9 types of incidents that are often reported in Maldives. In 2022, the number of incident reported cases were from a total of 61 islands. The biggest hazard that is faced in Maldives is fire incidents. Most fire Incidents are reported in the capital city of Male' while the islands face mostly flooding, surges and strong winds.

Table 1; Number of incidents by island

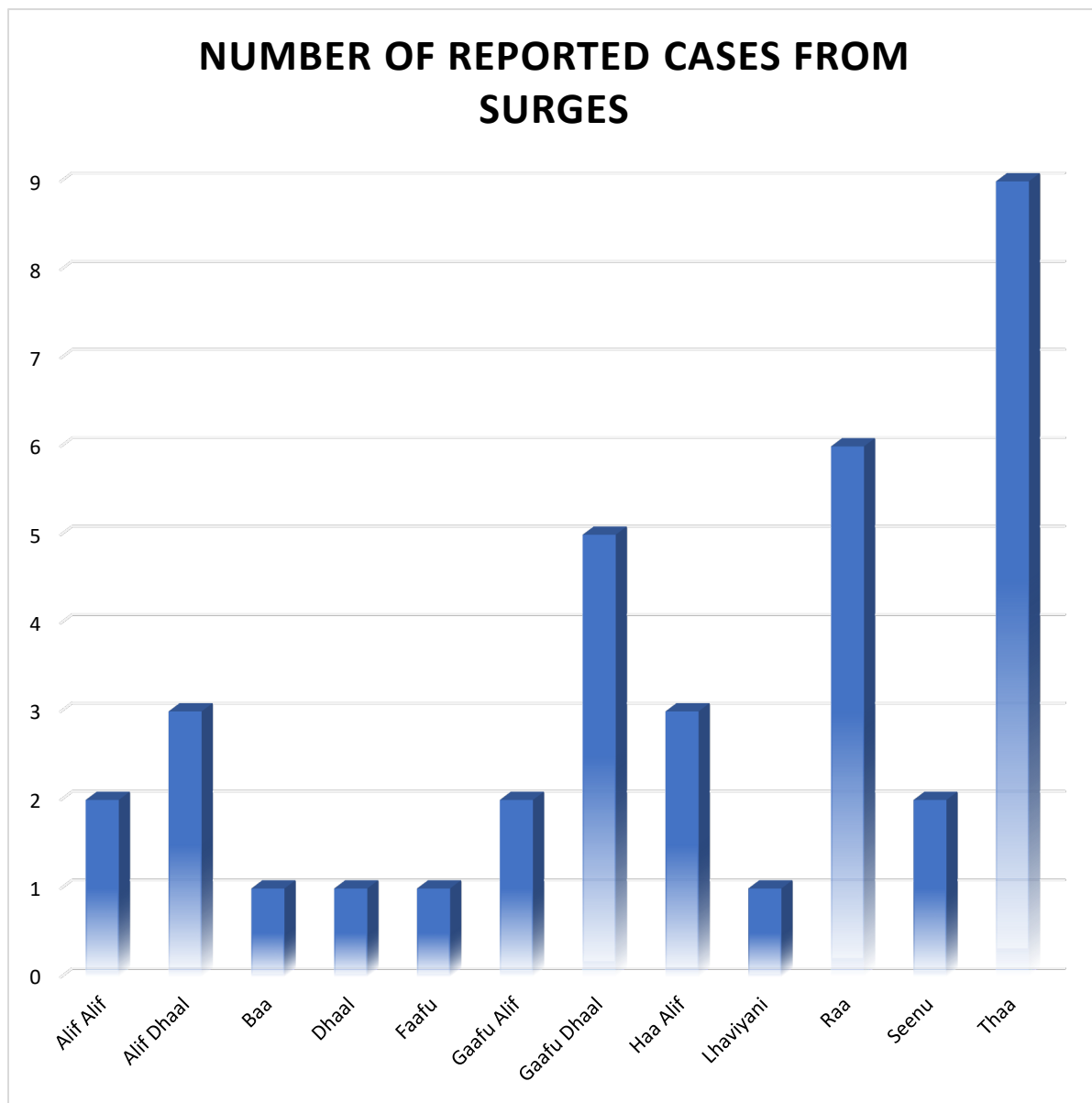
Islands	Number of Incidents Reported: By Hazard									
	Explosion	Fire	Flood	Cyclone	Strong Wind	Lightning	Surge	Other Causes	Boat Capsized	
Male'	2	35	3	0	0	0	0	0	0	0
Hulhumale'	0	4	1	0	0	0	0	0	0	0
S.Feydhoo	0	0	1	0	0	0	0	0	1	0
GDh.Thinadhoo	0	1	0	0	1	0	0	0	0	1
HDh.Nolhivaranfaru	1	0	0	0	0	0	0	0	0	0
N.Miladhoo	0	1	0	0	0	0	0	0	0	0
Lh.Naifaru	0	1	3	0	0	0	0	0	0	0
GA.Maamendhoo	0	1	0	0	0	0	0	1	0	0
M.Muli	0	1	0	0	0	0	0	0	0	0
Sh.Maamongoodhoo	0	1	0	0	0	0	0	0	0	0
S.Maradhoo	0	1	0	0	0	0	0	1	0	0
GDh.Gadhdhoo	0	2	0	0	0	0	0	0	0	0
S.Hithadhoo	0	2	0	0	0	0	0	0	0	0
GDh.Rathafandhoo	0	1	0	0	0	0	0	1	0	0
V.Rakeedhoo	0	1	0	0	0	0	0	0	0	0
Sh.Komandoo	0	1	0	0	0	0	0	0	0	0
B.Maalhoo	0	0	1	0	0	0	0	0	0	0
HDh.Kulhudhuffushi	0	0	5	0	1	0	0	0	0	0
F.Nilandhoo	0	0	1	0	0	0	0	1	0	0
HA.Ihavandhoo	0	0	1	0	0	0	0	0	0	0
N.Hebadhoo	0	0	1	0	0	0	0	0	0	0
N.Maalhendhoo	0	0	1	0	1	0	0	0	0	0
R.Maduvvari	0	0	1	0	0	0	0	1	0	0
B.Kendhoo	0	0	1	0	0	0	0	0	0	0
Th.Dhiyamigili	0	0	1	0	0	0	0	1	0	0
Sh.Billehfahi	0	0	0	1	0	0	0	0	0	0
Lh.Kurendhoo	0	0	0	0		1	1	0	0	0
Hdh.Kumundhoo	0	0	0	0	1	0	0	0	0	0
Sh.Funadhoo	0	0	0	0	1	0	0	0	0	0
HDh.Vaikaradhoo	0	0	0	0	2	0	0	0	0	0
HA.Hoarafushi	0	0	0	0	1	0	0	0	0	0
N.Maafaru	0	0	0	0	1	0	0	0	0	0
N.Lhohi	0	0	0	0	2	0	0	0	0	0
L.Maabaidhoo	0	0	0	0	0	0	0	2	0	0
L.Maavah	0	0	0	0	0	0	0	1	0	0
Th.Kandhoodhoo	0	0	0	0	0	0	0	1	0	0
Th.Omadhoo	0	0	0	0	0	0	0	1	0	0
Th.Thimarafushi	0	0	0	0	0	0	0	1	0	0
Dh.Kudahuvadhoo	0	0	0	0	0	0	0	1	0	0
R.Hulhudhuffaaruu	0	0	0	0	0	0	0	1	0	0
R.Fainu	0	0	0	0	0	0	0	1	0	0
R.Maakurathu	0	0	0	0	0	0	0	1	0	0
R.Ungoofaaruu	0	0	0	0	0	0	0	1	0	0
R.Meedhoo	0	0	0	0	0	0	0	1	0	0
ADh.Dhihdhoo	0	0	0	0	0	0	0	1	0	0
ADh.Fenfushi	0	0	0	0	0	0	0	1	0	0
GA.Kolamaafushi	0	0	0	0	0	0	0	1	0	0
Th.Veymandoo	0	0	0	0	0	0	0	1	0	0
Th.Madifushi	0	0	0	0	0	0	0	1	0	0
Th.Gaadhiffushi	0	0	0	0	0	0	0	1	0	0
Th.Guraidhoo	0	0	0	0	0	0	0	1	0	0
Th.Kinbidhoo	0	0	0	0	0	0	0	1	0	0
GDh.Fiyoari	0	0	0	0	0	0	0	1	0	0
GDh.Hoadehdhoo	0	0	0	0	0	0	0	1	0	0
GDh.Fares	0	0	0	0	0	0	0	1	0	0
GDh.Madaveli	0	0	0	0	0	0	0	1	0	0
S.MaradhooFeydhoo	0	0	0	0	0	0	0	1	0	0
B.Thulhaadhoo	0	0	0	0	0	0	0	1	0	0
AA.Feridhoo	0	0	0	0	0	0	0	1	0	0
AA.Thoddo	0	0	0	0	0	0	0	1	0	0
ADh.Dhigurah	0	0	0	0	0	0	0	1	0	0



## 6. Number of reported cases from surges

According to the data shown below, total of 12 atolls have reported surges cases in 2022. Out of 12 atolls, Thaa atoll have reported most cases. Other atolls have reported a range of incidents, varying from 1 to 6.

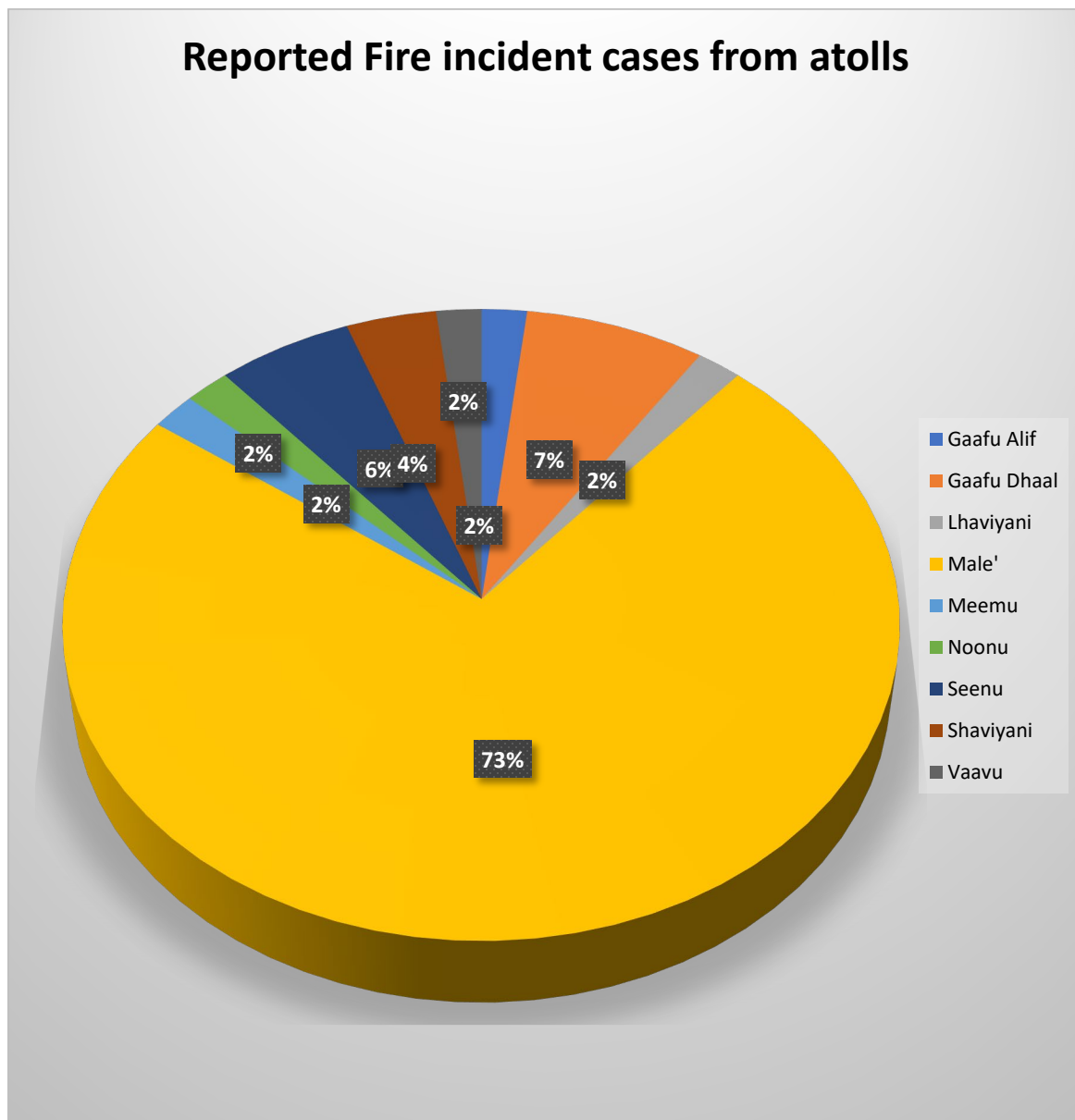
Figure 6; Number of reported cases from surges



## 7. Number of reported fire incident cases from atoll

In 2022, there were fire incidents reported in a total of nine atolls. Male's atoll, in particular, accounted for the majority of these incidents, comprising over half of the total number. The remaining eight atolls reported fire incidents at varying rates, ranging from 1% to 7%.

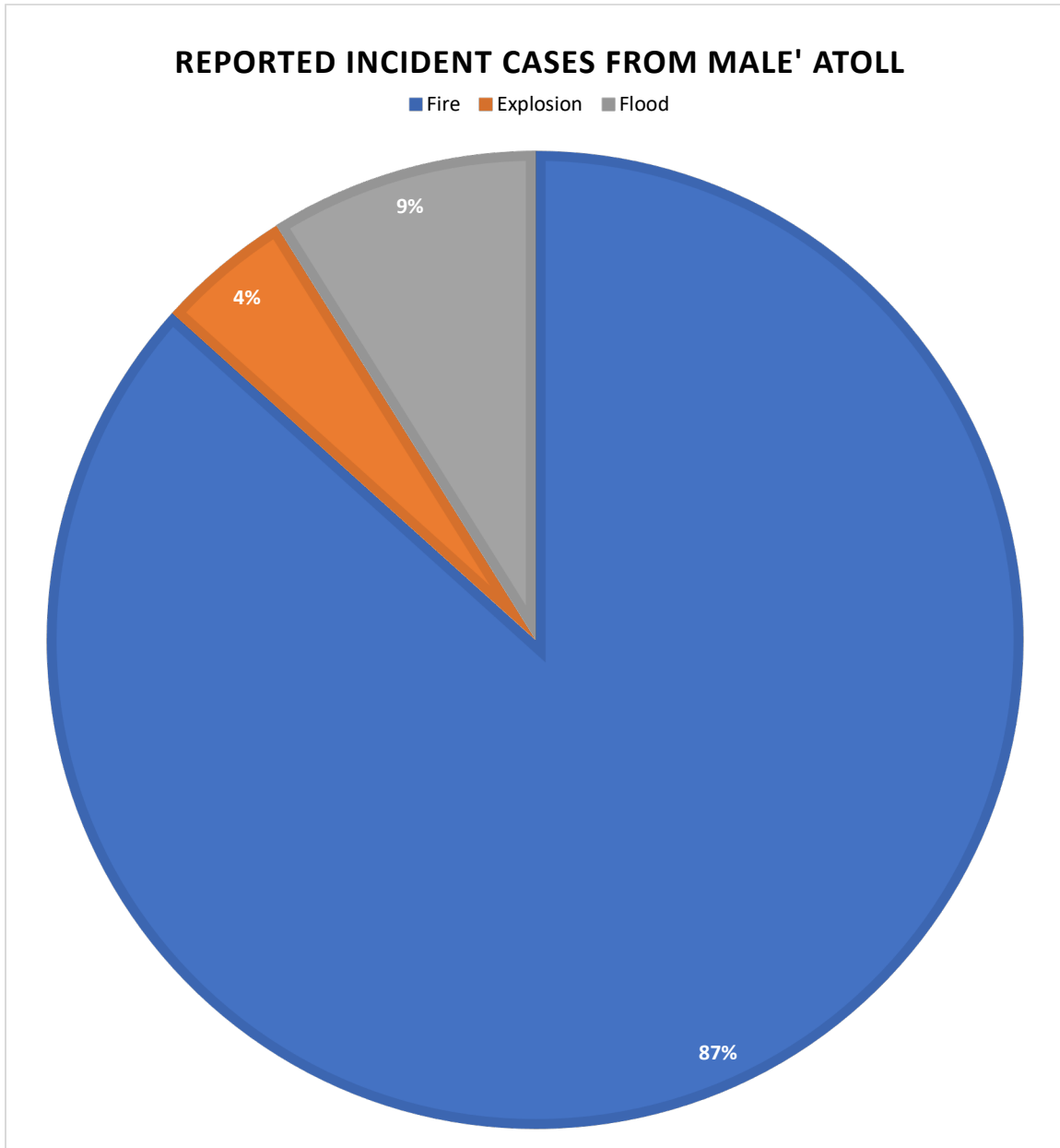
Figure 7; Number of fire incidents reported by atoll



## 8. Reported incident cases from Male' atoll

In 2022, Male's atoll had the highest number of reported fire incidents. Three major incident types were documented in Male's atoll: fire, explosion, and flood. Of these three incident types, fire had the highest number of reported cases, surpassing the others by more than 80%.

Figure 8; Number of incident reported cases from Male' atoll



## 9. Government financial assistance by type of hazard

In 2022, fire incident cases were most funded by the government for economic and infrastructure damages.

Table 2; Financial assistance by type of hazard

Types of hazards	Total Financial Aid (MVR)
	2,027,215.44
Fire	
	477,003.16
Cyclone/storm	
	7,380.00
Gas explosion	
	5,145.00
Rain water flood	
	924,424.50
Storm/ surges	
	145,413.10
Surges	
<b>Total</b>	<b>3,586,581.20</b>

## 10. Government financial assistance provided by islands

Twenty-eight islands out of the 189 inhabited islands received government financial assistance for hazard events in 2022. Islands that received assistance for the majority of hazard events include Male' city, Th. Thimarafushi, and GDh. Rathafandhoo.

Table 3; Financial assistance by island

Island name	Number of events provided
GA. Maamendhoo	1
M. Muli	1
Male' City	5
Lh. Naifaru	1
GDh. Madaveli	1
N. Lhohi	1
Sh. Funadhoo	1
S. Hithadhoo	1
GDh. Hoadedhdhoo	1
Th. Thimarafushi	2
Sh. Bileffahi	1
S. Maradhoo	1
S. Maradhoo Feydhoo	1
GDh. Rathafandhoo	2
HDh. Vaikaradhoo	1
GDh. Fiyoaree	1
Hulhumale'	1
HDh. Kumundhoo Nanreethige	1
HA. Ihavandhoo	1
V. Rakeedhoo	1
GDh. Thinadhoo	1
GDh. Gadhdhoo	1
<b>Total</b>	<b>28</b>

## 11. Challenges and Recommendations

### 11.1 Challenges

**Hazard Identification:** Properly identifying and categorizing various hazards, such as cyclones, tsunamis, flooding, and coastal erosion, along with their impacts, can be complex due to their interrelated nature

**Data Privacy and Security:** Protecting sensitive data and ensuring privacy while making information accessible for research and policy purposes can be a delicate balance.

### 11.2 Recommendation

**Standardize Data Collection:** Develop standardized data collection protocols and reporting formats to ensure consistency and comparability of data across different regions of Maldives and time periods.

**Enhance Data Quality:** Implement data validation and quality control mechanisms to minimize errors and inconsistencies in the data. Provide clear guidance to data collectors on reporting criteria.

**Multi-year Reporting:** Consider producing reports on a multi-year basis to capture trends and changes in disaster patterns over time.

By implementing these recommendations, the Maldives NDMA can produce a more robust and informative Disaster Statistical Report that serves as a valuable resource for disaster risk reduction, policy development, and response planning.

## Conclusion

In conclusion, adhering to these recommendations will facilitate the development of a comprehensive and reliable Maldives Disaster Statistical Report. This report, with standardized data collection, improved data quality, enhanced hazard identification, and increased community engagement, will serve as a vital tool in addressing disaster risks, fostering resilience, and guiding policy decisions in the Maldives.