

3.7.3 Flooding (including Riverine Floods, Flash floods, Urban flood and Heavy rain)

3.7.3.1 Distribution

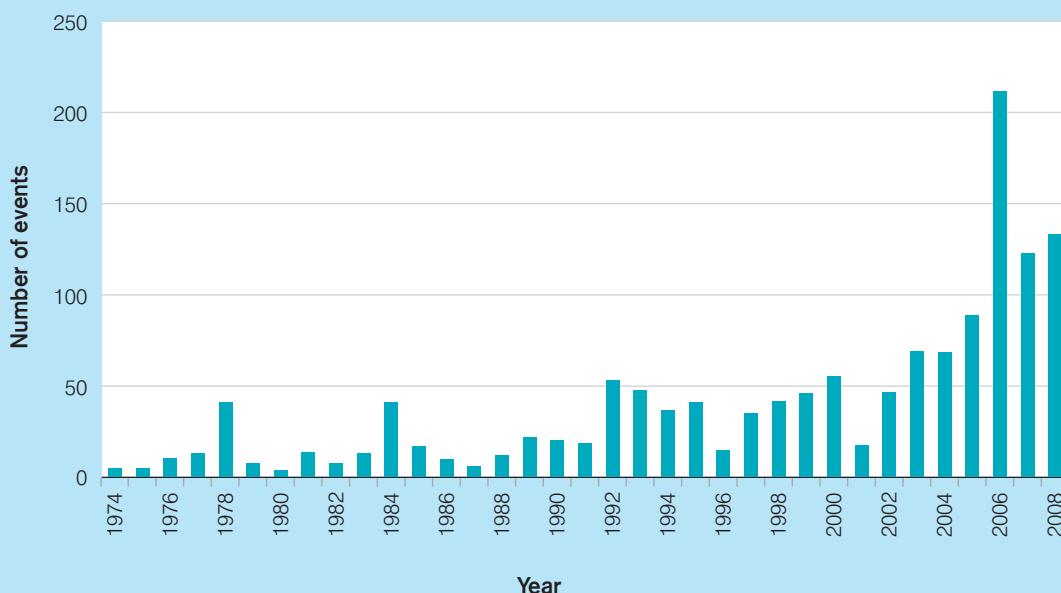
Annual Time Series Distribution

Figure 44 shows the occurrence of flooding during the period 1974-2008. Throughout the years it appears to take on a consistent pattern. However, after the year 1998, the pattern of flooding has been fluctuating. The incidence of flooding seems to be prevalent in the latter years with most flooding occurring in the year 2006.

Seasonal Distribution

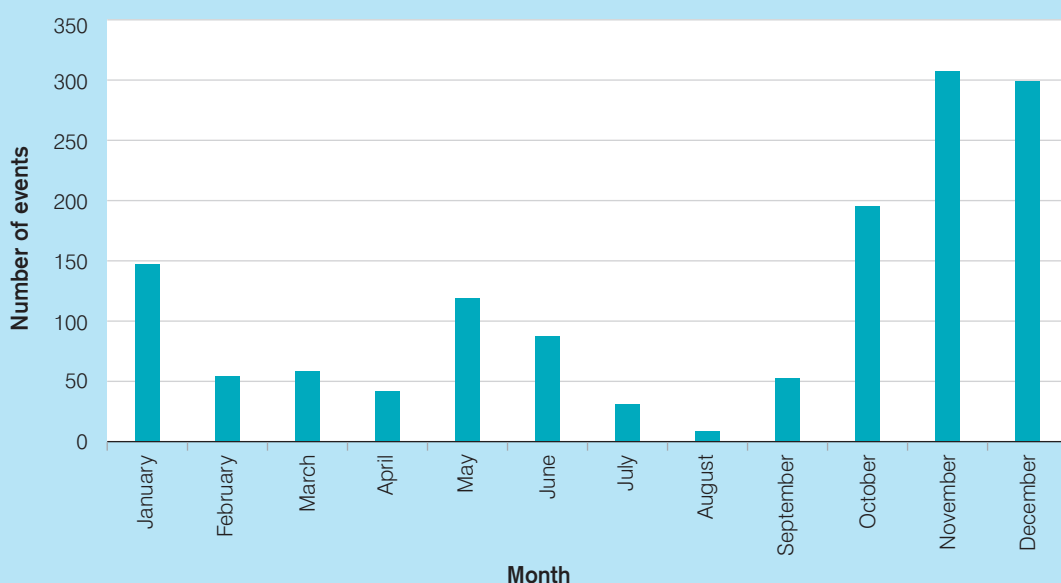
Flooding in Sri Lanka appears to take on a cyclical pattern with peaks at two different points of time as seen from Figure 45. The first peak can be seen in May and thereafter, a second peak can be seen in October, November, December and January. This may be attributable to the patterns of the monsoon.

Figure 44 :
Annual
Time Series
Distribution of
Floods



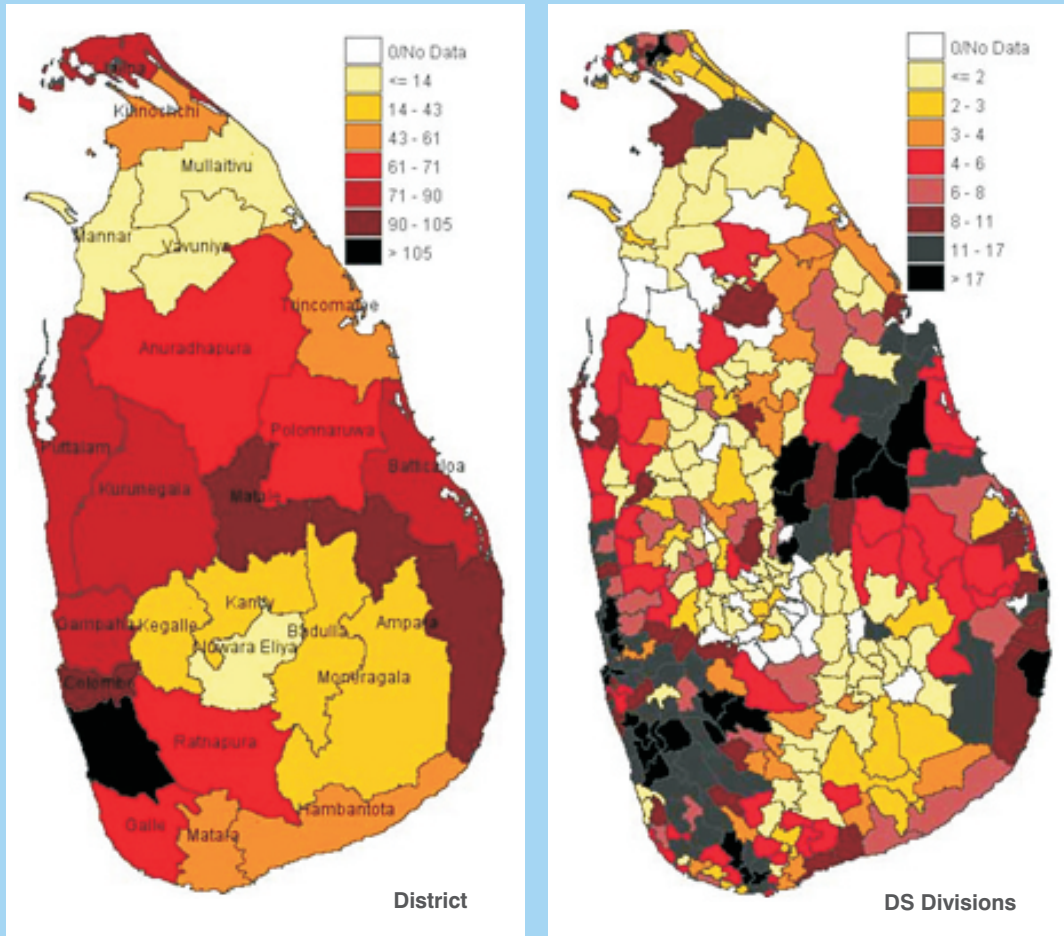
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Figure 45 :
Seasonal
Distribution of
Floods :
1974 - 2008



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Map 24 :
Spatial
Distribution
of Floods :
1974 - 2008



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Spatial Distribution

With respect to spatial distribution (Map 24), floods appear to occur mostly in the districts of Kalutara and also in areas like Ratnapura, Gampaha, Ampara and Jaffna. With respect to DS divisions, the highest incidence of flooding appears to occur in the Western parts of the island, while most other DS divisions have a low incidence.

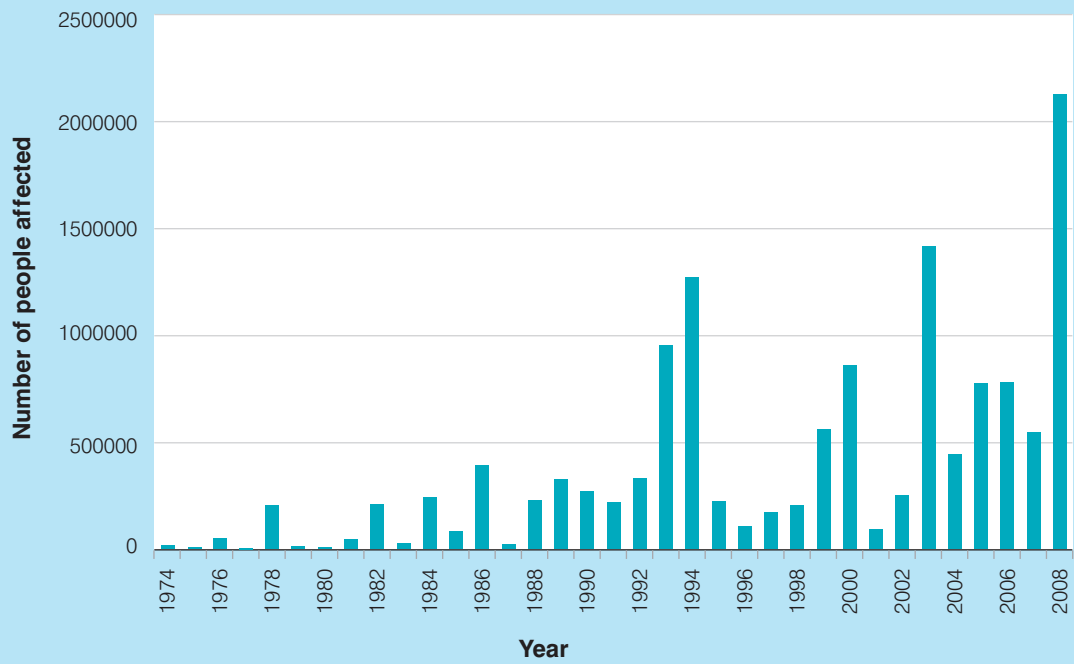
3.7.3.2 Impacts

People Affected (Annual Time Series and Spatial Distribution)

The time trend of people affected appears to have fluctuated considerably during the period under consideration (Figure 46). However, it can be seen that people have been increasingly affected by floods since 1993, with the highest number affected in the year 2008. When considering the Spatial

Distribution (Map 25), people located in Batticaloa appear to be the most affected by the floods along with people in Colombo, Gampaha, Rathnapura and Ampara. Those people located in districts in the Central part of the island appear to be the least affected. A similar pattern can be observed with respect to the DS divisions.

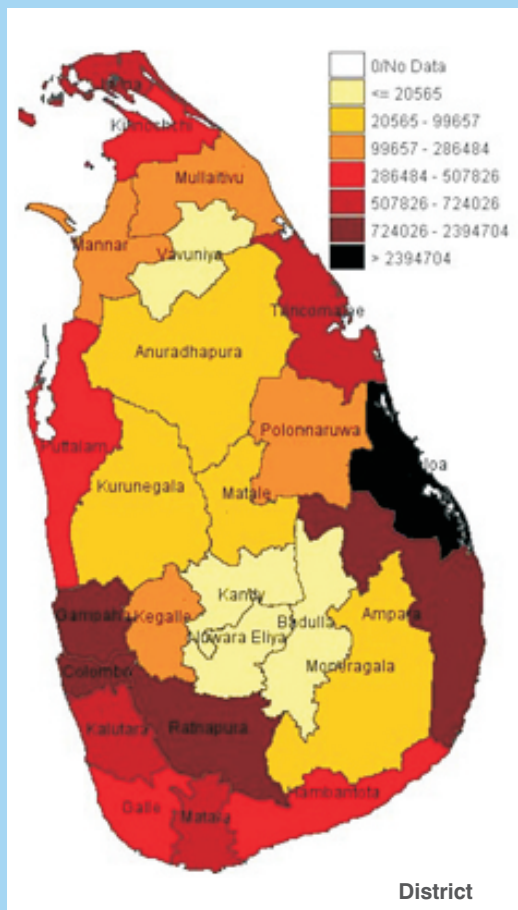
Figure 46 :
People Affected
Due to Floods -
Annual Time
Series
Distribution



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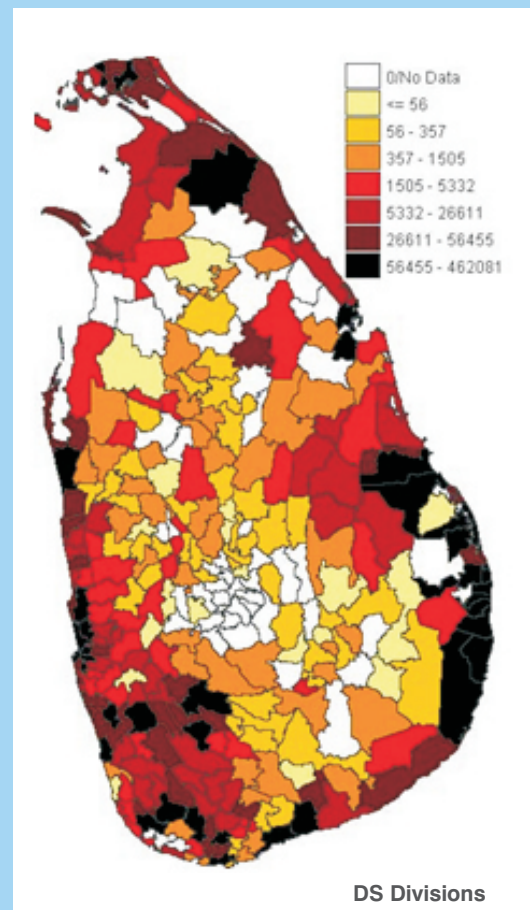
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Map 25 :
People Affected
Due to Floods
- Spatial
Distribution:
1974 -2008



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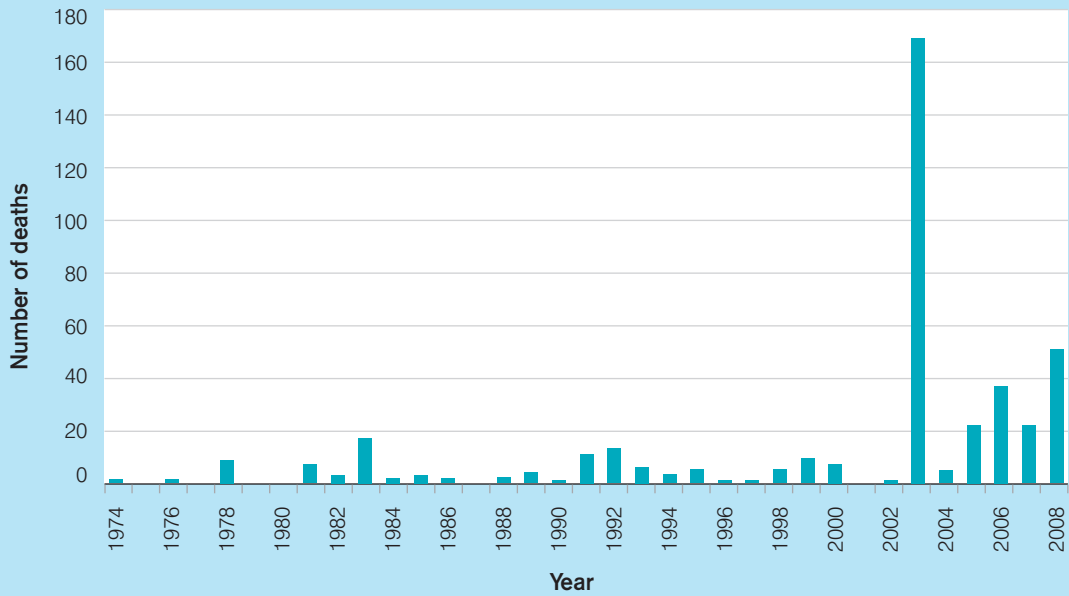


Loss of Life (Annual Time Series and Spatial Distribution)

The loss of life due to floods is relatively quite low and stable over the time period (Figure 47). However, a large increase in the number of deaths was seen in 2003 as the rain was exceptionally intense during May 2003, which caused severe floods. People living

in the districts of Kalutara, Rathnapura, Jaffna, Matara and Galle have been most prone to loss of life due to floods (Map 26). The low incidence of life loss reflected in a majority of DS divisions across the island can be attributed to the limited availability of disaggregated data at the DS division level.

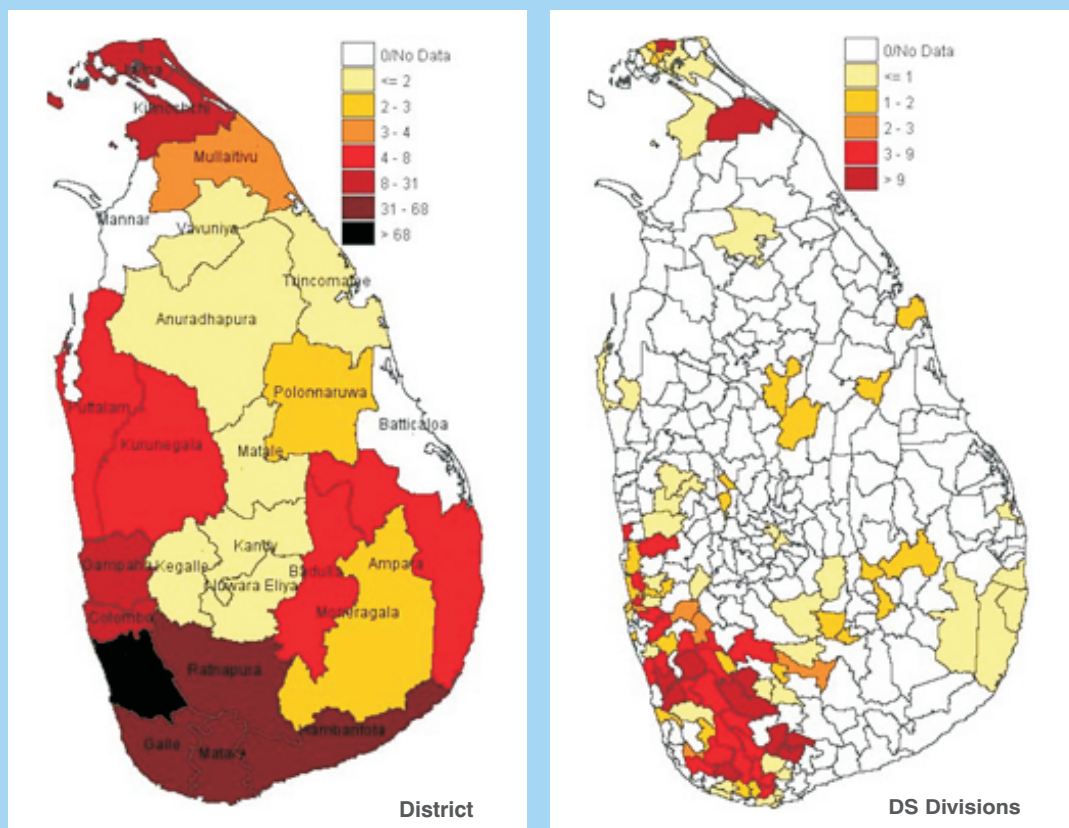
Figure 47 :
Loss of Life Due to Floods – Annual Time Series Distribution



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Map 26 :
Loss of Life Due to Floods – Spatial Distribution : 1974 -2008



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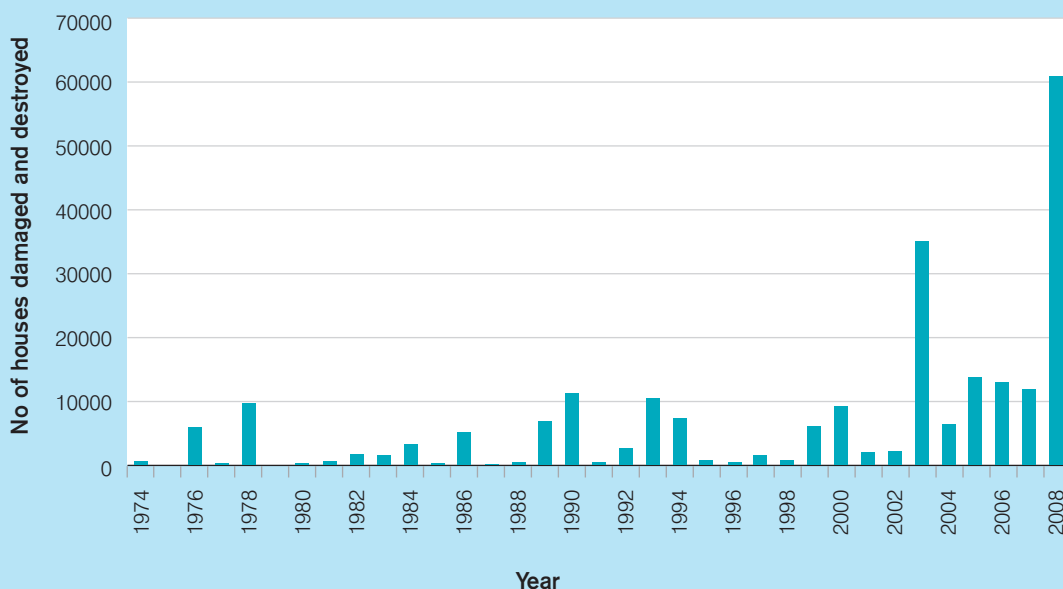
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Destroyed and Damaged Houses (Annual Time Series and Spatial Distribution)

Houses destroyed and damaged seem to take on a fluctuating pattern (Figure 48). However, the most damage has been caused by the floods that occurred in 2008. Spatially (Map 27), most of the damage has taken place in the districts of Ampara,

Batticaloa, Rathnapura, Jaffna and Polonnaruwa. Districts such as Nuwara Eliya, Matale, Kandy and Vavuniya appear to be the least affected. With respect to DS divisions, most of the damage appears to occur in DS divisions located in the Southern and South Western parts of the island

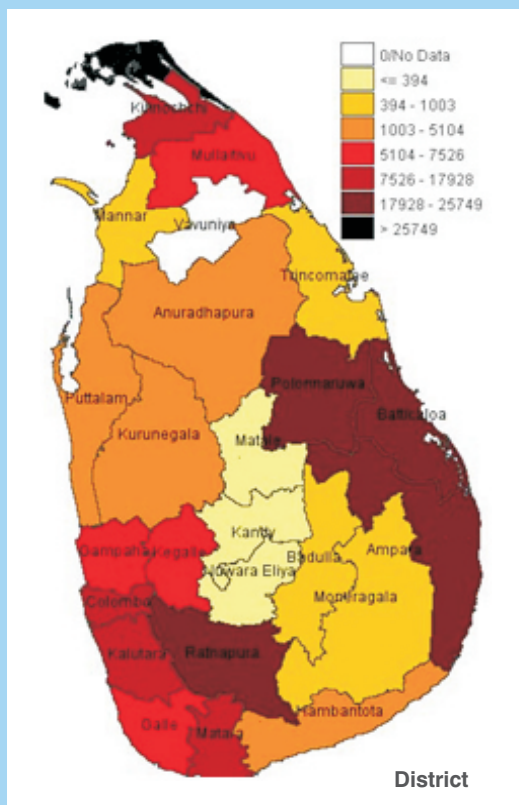
Figure 48 :
No of Houses Destroyed and Damaged Due to Floods – Annual Time Series Distribution



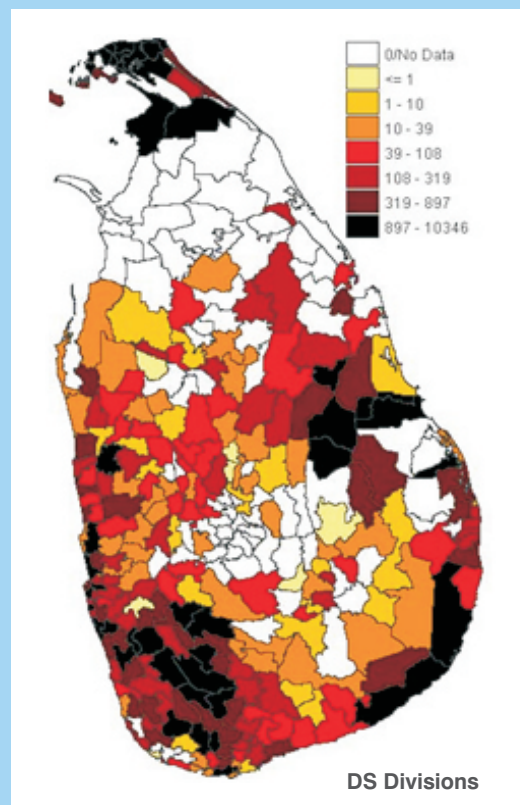
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Map 27 :
No of Houses Destroyed and Damaged Due to Floods – Spatial Distribution : 1974 - 2008



District



DS Divisions

source

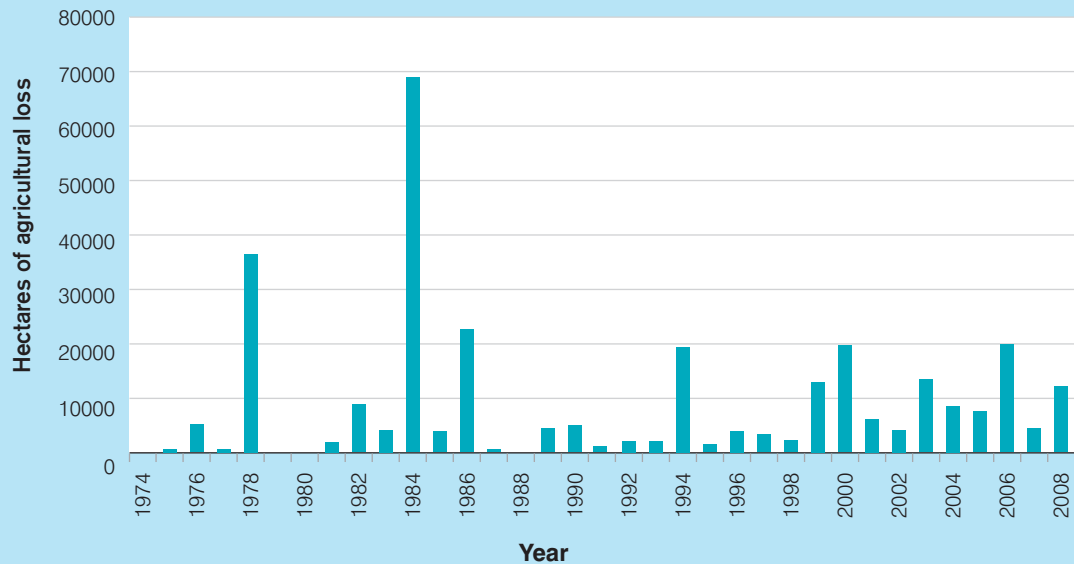
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Losses to Agricultural Crops (Annual Time Series and Spatial Distribution)

Most damage to paddy has been observed in the earlier years, with the worst impact recorded in 1984 (Figure 49). Despite this, losses appear to have been consistent and low throughout the period under

review. Spatially (Map 28), most damage has taken place in the districts of Kurunegala, Polonnaruwa, Batticaloa, Killinochchi and Ampara, whilst least damage has taken place in Kandy, Matale and Nuwara Eliya. With respect to DS divisions, most of the DS divisions are not severely affected.

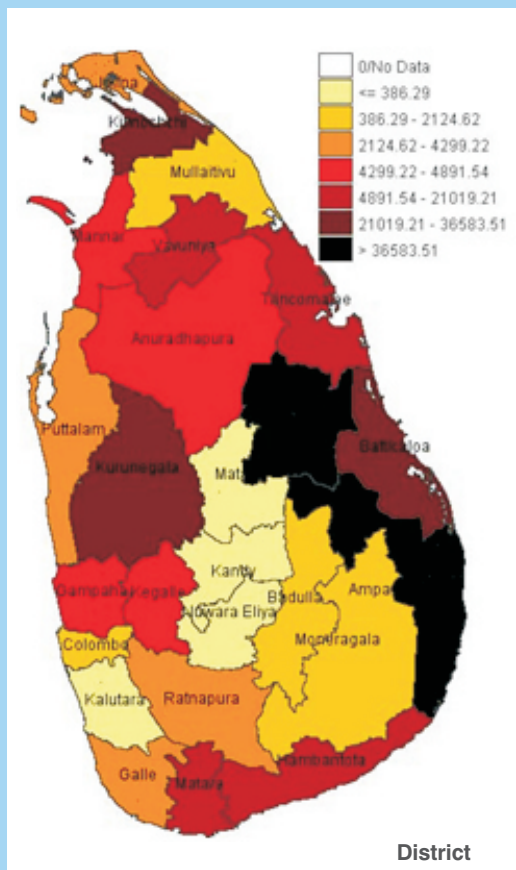
Figure 49 :
Agricultural
Loss Due to
Floods
(in Hectares) –
Annual
Time Series
Distribution



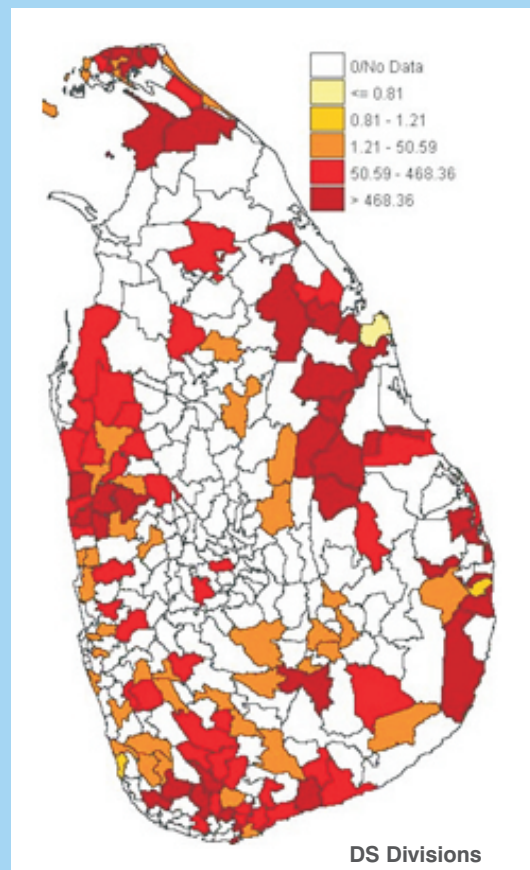
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Map 28 :
Agricultural
Loss Due to
Floods
(in Hectares) –
Spatial
Distribution :
1974 -2008



District



DS Divisions

source

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Box 9 :
Conclusions on
Distribution and
Impacts of
Flooding

The incidence of flooding seems to be most frequent in the latter years, with the most flooding occurring in the year 2006. Further, the floods in Sri Lanka are most likely to occur in the months of May in the first cycle and in December in the second cycle. With respect to spatial distribution floods are most frequent in the districts of Jaffna, Kalutara, Rathnapura, Gampaha and Ampara.

People have become increasingly affected by floods with the highest number recorded in 2008. Further, people located in the districts of Gampaha, Kalutara, Batticaloa, Rathnapura and Ampara have been most affected by floods. However, the occurrence of deaths due to floods is quite low except for the year 2003 where it

reached nearly 180 persons. Destruction and damage to houses and buildings also appear to follow a similar pattern with most damage occurring in the districts of Rathnapura, Ampara, Batticaloa, Polonnaruwa, and Jaffna. Damage to paddy has taken place mostly in the earlier years with the highest impact recorded in 1984, while spatially the highest damage has incurred in the districts of Kurunegala, Polonnaruwa, Ampara and Batticaloa.

In some instances with respect to DS divisions, some impacts have been reflected as low, which can be attributed to the limited availability of disaggregated data at this level.