

3.7.5 Drought

3.7.5.1 Distribution

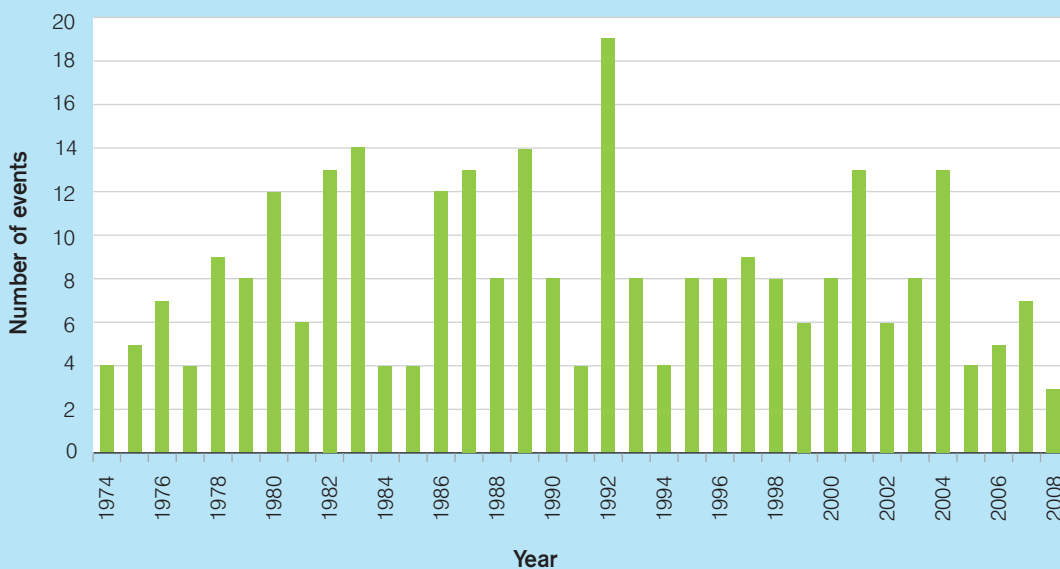
Annual Time Series Distribution

Sri Lanka as an island located close to the equator is prone to warm weather conditions. This can be seen by the annual occurrences of droughts in the country (Figure 56). It must be noted that the drought experienced in 1992, was widespread, with over 18 events of drought recorded in this year. There were more secondary peaks of drought events in 1982, 1983, 1987, 1989, 2001 and 2004. Data does not show any clear trend in the overall occurrence of drought.

Seasonal Distribution

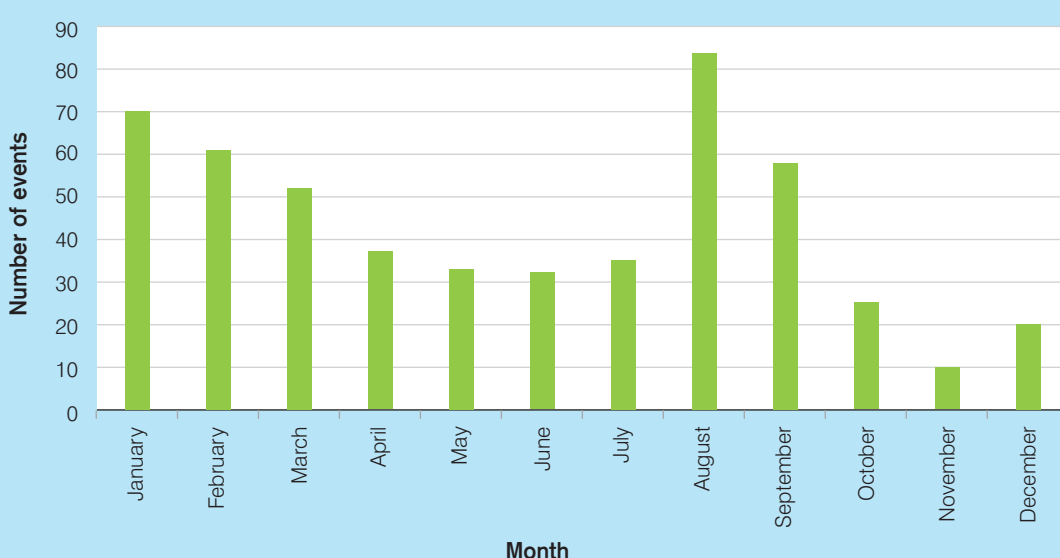
Seasonal distribution of droughts demonstrates a clear link with the distribution of the rainfall as illustrated in the figure 57 below. High numbers of drought events have been recorded during January-March, and also during the period of August-September showing a clear relationship with the two inter-monsoon periods in Sri Lanka. The second peak is higher than the first and August is the month recorded with highest occurrence of drought surpassing 80 events.

Figure 56 :
Annual Time Series Distribution of Drought



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Figure 57 :
Seasonal Distribution of Drought : 1974-2008



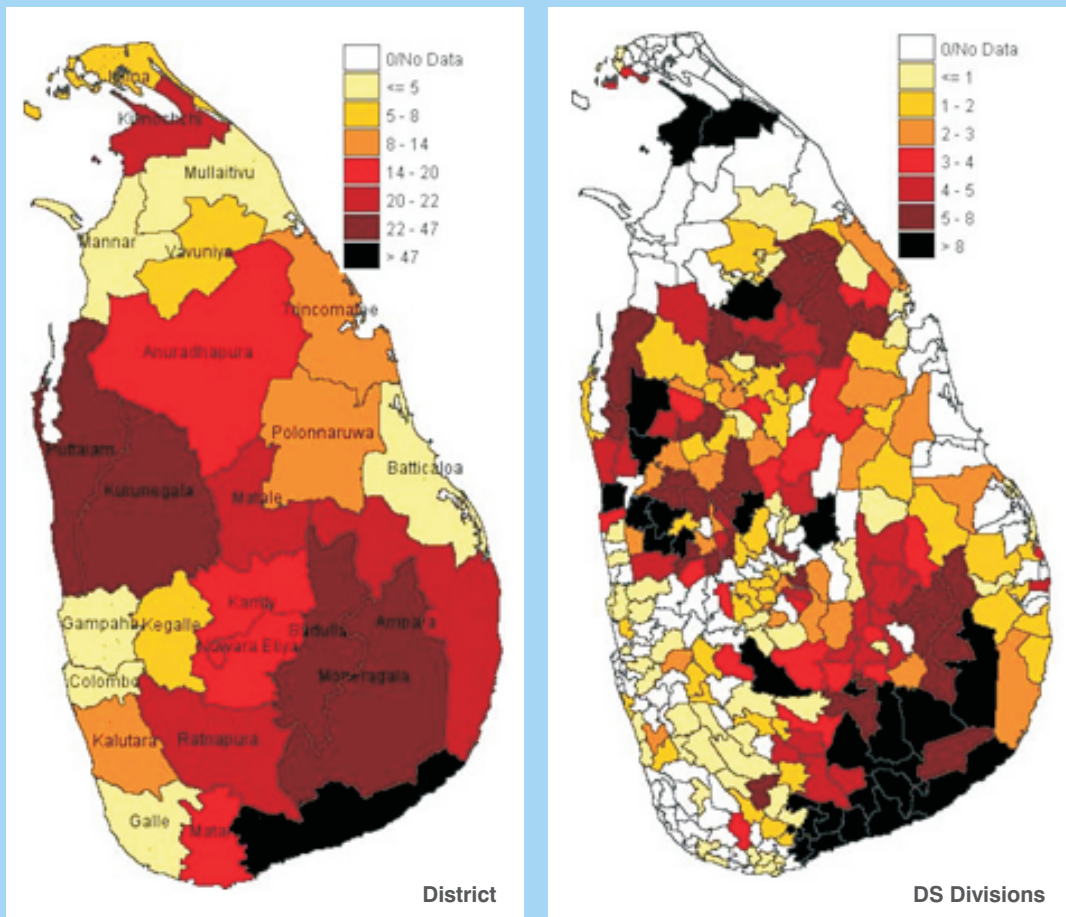
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Spatial Distribution

With respect to spatial distribution (Map 34), the area that appears to have drought occurring mostly is Hambantota where it has surpassed the upper limit. Districts such as Gampaha, Colombo, Galle, Mannar and Mullaitivu do not experience as many droughts. This may be due to the geographical location of

these districts. Further, with respect to the DS divisions, those located in the Southern parts of the island and also those located within the districts of Anuradhapura and Kurunegala appear to experience the largest incidence of droughts. However, most of the DS divisions located in the Northern and Western parts of the island experience no droughts at all.

Map 34 :
Spatial
Distribution
of Drought:
1974-2008



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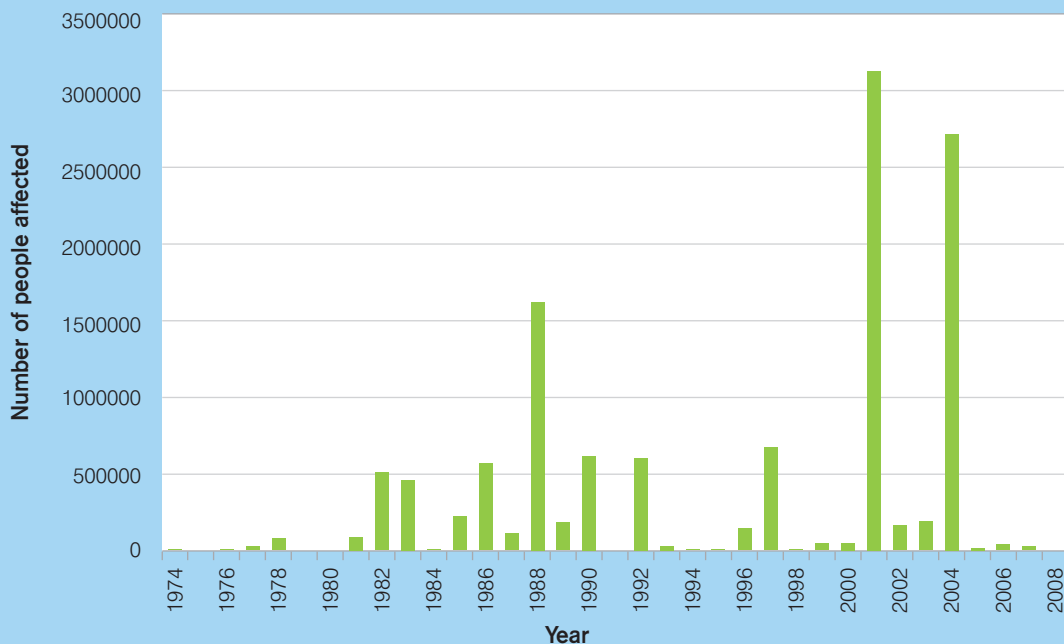
3.7.5.2 Impacts

People Affected (Annual Time Series and Spatial Distribution)

Severe droughts affecting large numbers of people have occurred during the three years of 1988, 2001 and in 2004 with the largest number of people being affected in 2001 (300,000) (Figure 58). With respect to spatial distribution (Map 35), people living in the districts of Anuradhapura, Kurunegala, Puttalam, Hambantota and Moneragala were the most

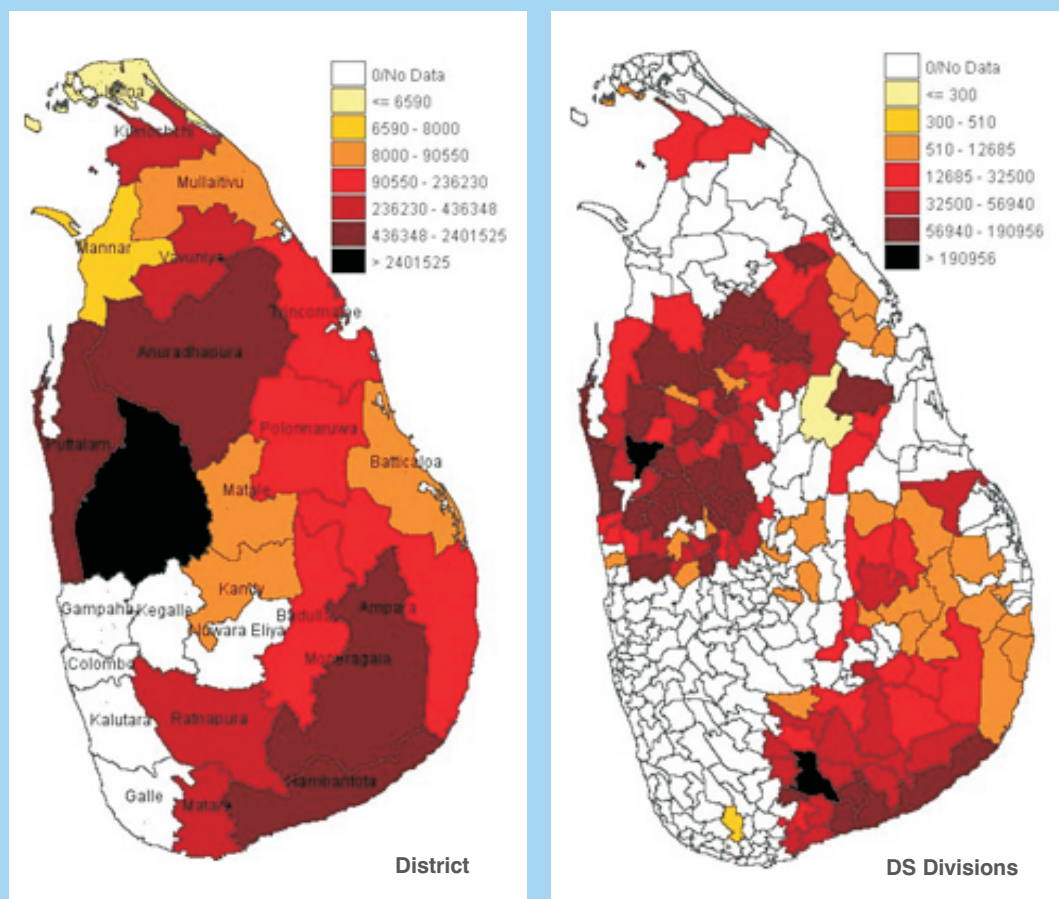
affected. Those living in the districts of Gampaha, Kegalle, Colombo, Kalutara, Galle and Nuwara Eliya appear to be the least affected. DS divisions, affected by drought are spread across the island. However, many DS divisions do not have a very large amount of people affected, especially in the South Western, Central and Northern parts of the island.

Figure 58 :
People Affected
Due to Drought
– Annual Time
Series
Distribution



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Map 35 :
People Affected
Due to Drought
- Spatial
Distribution :
1974 -2008



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

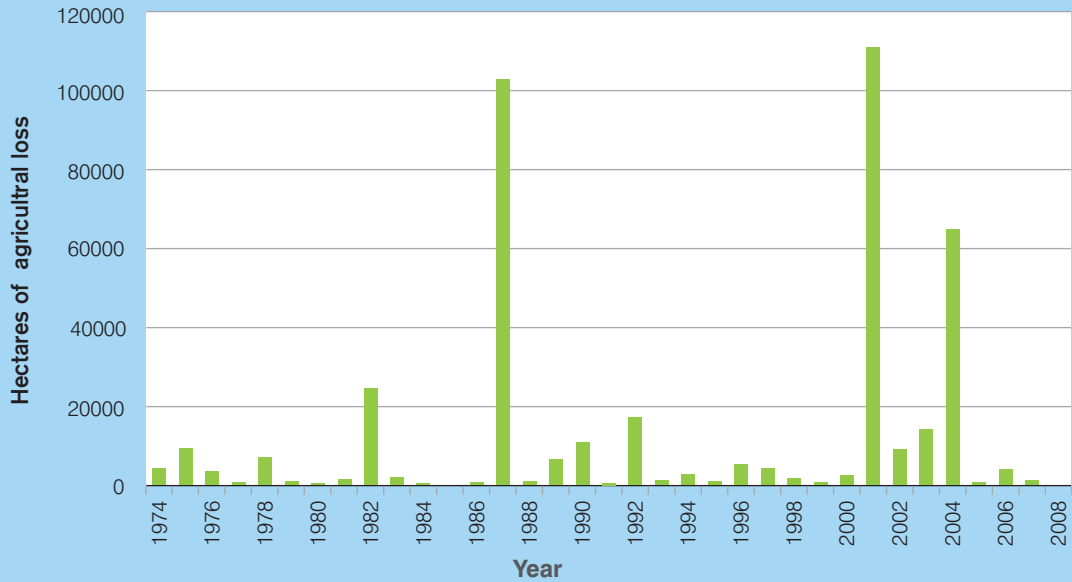
With respect to agricultural loss, the annual time series distribution has been fairly consistent and

does not take on a cyclical pattern (Figure 59). However, there has been an unusual increase in crop loss in the period 1987, 2001 and 2004, due to the severity of the droughts in these years. Spatially (Map

36), the largest amount of crop loss can be seen in the districts of Kurunegala and Hambantota, where the figures have surpassed the upper limit. Districts such as Gampaha, Colombo, Kalutara, Mullaitivu and Galle appear to be the least affected in terms of crop loss. The majority of DS divisions are reflected

as having incurred very low crop loss, and the reason for this the limited availability of disaggregated data at the DS division level. Only a very few DS divisions scattered across the island is seen as having experienced a large crop loss.

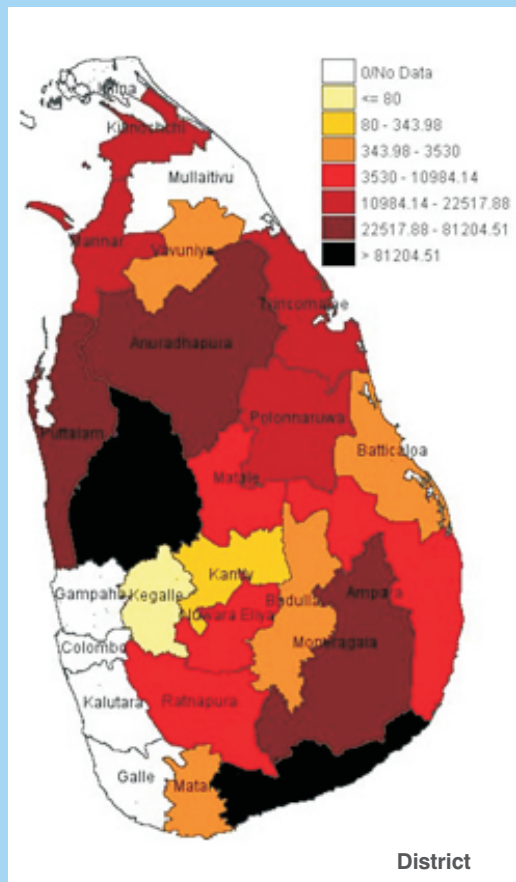
Figure 59 :
Agricultural
Loss Due to
Drought (in
Hectares)
– Annual Time
Series
Distribution



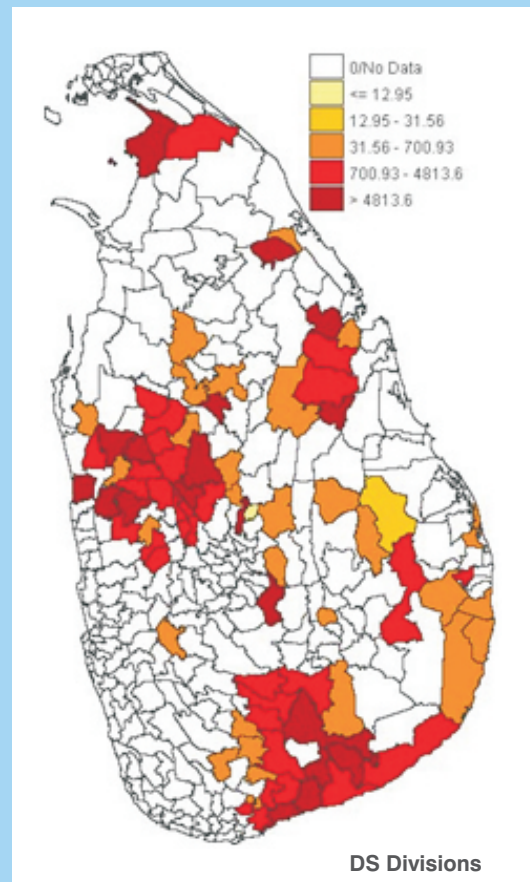
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Map 36 :
Agricultural
Loss Due to
Drought (in
Hectares)
– Spatial
Distribution :
1974 - 2008



District



DS Divisions

source

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Box 11 :
**Conclusions on
Distribution and
Impacts of
Drought**

The high annual occurrence of widespread drought in Sri Lanka, a small tropical island close to the equator, shows the critical impact of warm climate conditions. It is also important to note that major droughts occurred in 1992 and 2001.

A look at the seasonal distribution shows that droughts occur largely in the month of August. With respect to the spatial distribution, areas most affected appear to be the districts of Kurunegala, Puttalam, Hambantota, Moneragala and Ampara. People were most affected by severe droughts that occurred in the years of 2001 and 2004. The spatial impacts of

agricultural loss from droughts followed a similar pattern as people affected. However, high agricultural losses were reported in the years 2001 and 2004, while large losses were also recorded in the year 1987. Some impacts reflected at the DS division level have been somewhat low, which can be attributed to the limited availability of desegregated data at this level.

With regards to drought impact, it must be emphasised that its impact on the country's economy has been very high throughout the years, which therefore necessitates a detailed economic analysis to quantifying the same.