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SPECIAL CLIMATE IMPACT ASSESSMENT

SOMALIA



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Introduction - This Climate Impact Assessment report interprets the weather impact on vegetation growth during the minor (der) rainy season in Somalia. The assessment is based on three years (1984-1986) satellite vegetation data for the period September through November, Meteosat cloud images through December 10, and ten-day rainfall for September-October provided by USAID. The report is late due to a delay in the availability of the basic information. The final report will be issued in January.

Highlights - The outlook for minor season cereals is unfavorable. Lack of October and November rains in the main agricultural areas of southern Somalia (mostly Shabellaha river valley) caused vegetation to be less developed this year than in 1985 and 1984. This suggests drought impact and possible reduction in crop yield and limitation in pasture use. However, recent rains, as indicated by satellite imagery, have moderated this impact. Unusually wet weather in the northern rangelands area and also Jubbada Hoose province caused vegetation growth to be better developed than in the last two years. Only in these areas are above average pasture biomass and crop yields expected.

Details - In the principal crop and pasture growing areas of southern Somalia (Shabellaha river valley), autumn rains arrived late, were erratic, and in some areas negligible through October (Fig. 1). This slowed the pace of vegetation growth (Fig. 2). Lack of moisture persisted into late November and further worsened growing conditions, causing the drought-affected area to increase in size. Satellite data clearly indicated vegetation was less developed than in the previous year (Fig. 3). However, in some areas the drought impact was moderated by increased rainfall in late November and early December. On December 9-11 satellites recorded substantial cloudiness over central Somalia. Rainfall in parts of Shabellaha Dhexe, Shabellaha Hoose, and southern Galguduud provinces likely brought some relief to drought-stricken vegetation. However, because these rains came late and they normally end in December, a considerable improvement in vegetation is unlikely. Therefore, prospects for second-season crops and rangeland in the Shabellaha river valley are not as good as last year.

In the northern rangeland areas, abundant September rains (Fig. 1) abruptly ended late summer dryness and benefited vegetation growth. In these areas vegetation development and grazing conditions were better than last year (Fig. 3). Continued rains in October (Fig. 1), and most probably in early

November (based on satellite imagery), maintained vegetation growth, which expanded southward (Fig. 3). The outlook for fall pasture and crops is promising. However, decreases in the Normalized Vegetation Index by late November suggest the end of the growing season.

Late November vegetation conditions within most of the Juba river valley are comparable to those in 1985. Late October rains improved growing conditions in Jubbada Hoose province (Fig 2). Crop yields are expected to be similar or slightly better than in the 1985 der season. In southern Gedo province drought slowed vegetation growth. As of late November vegetation was less developed than in 1985 in southern Gedo but comparable to 1985 vegetation development in the northern part.

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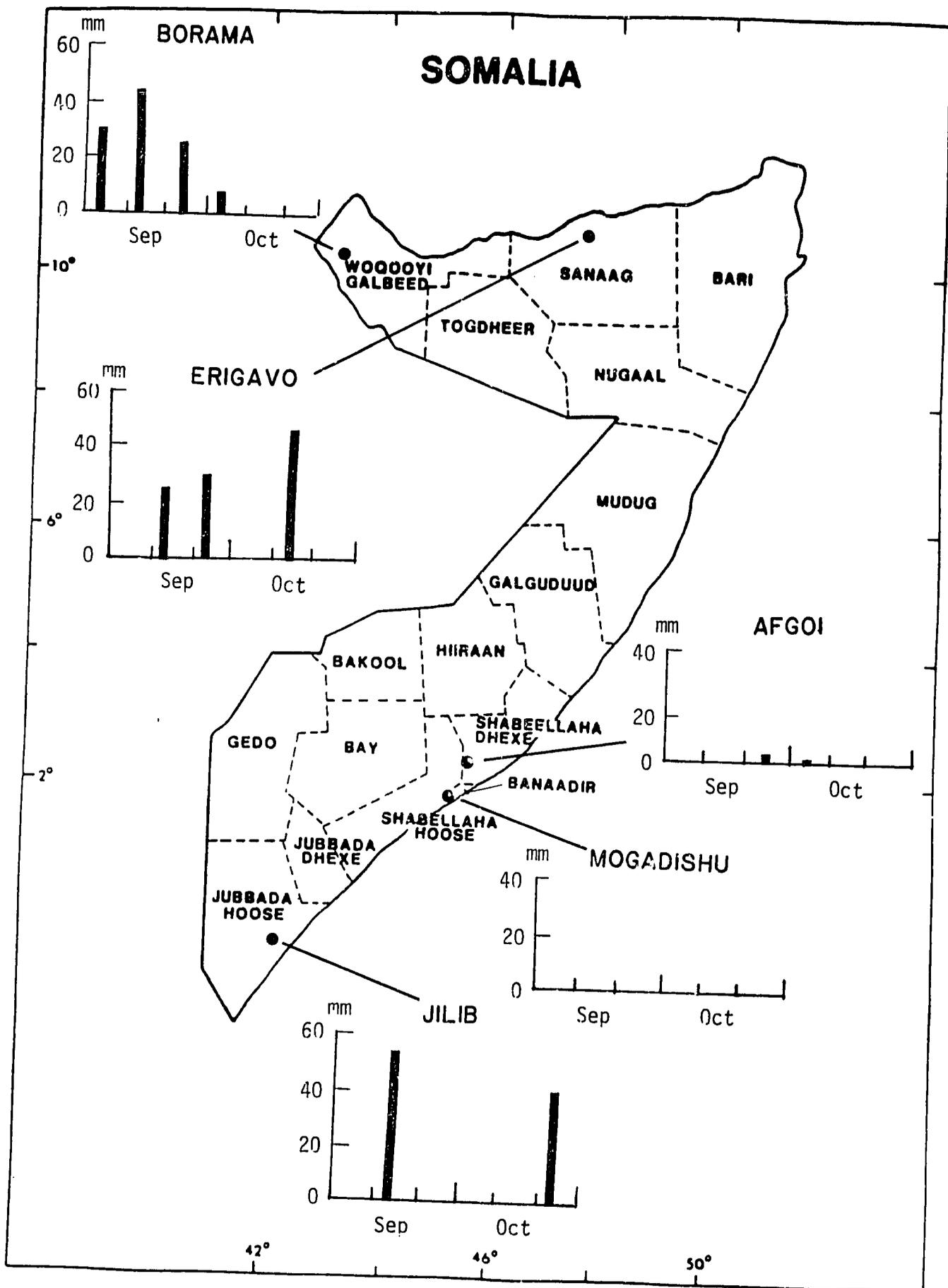


Fig. 1. Total Ten-day Precipitation, September-October

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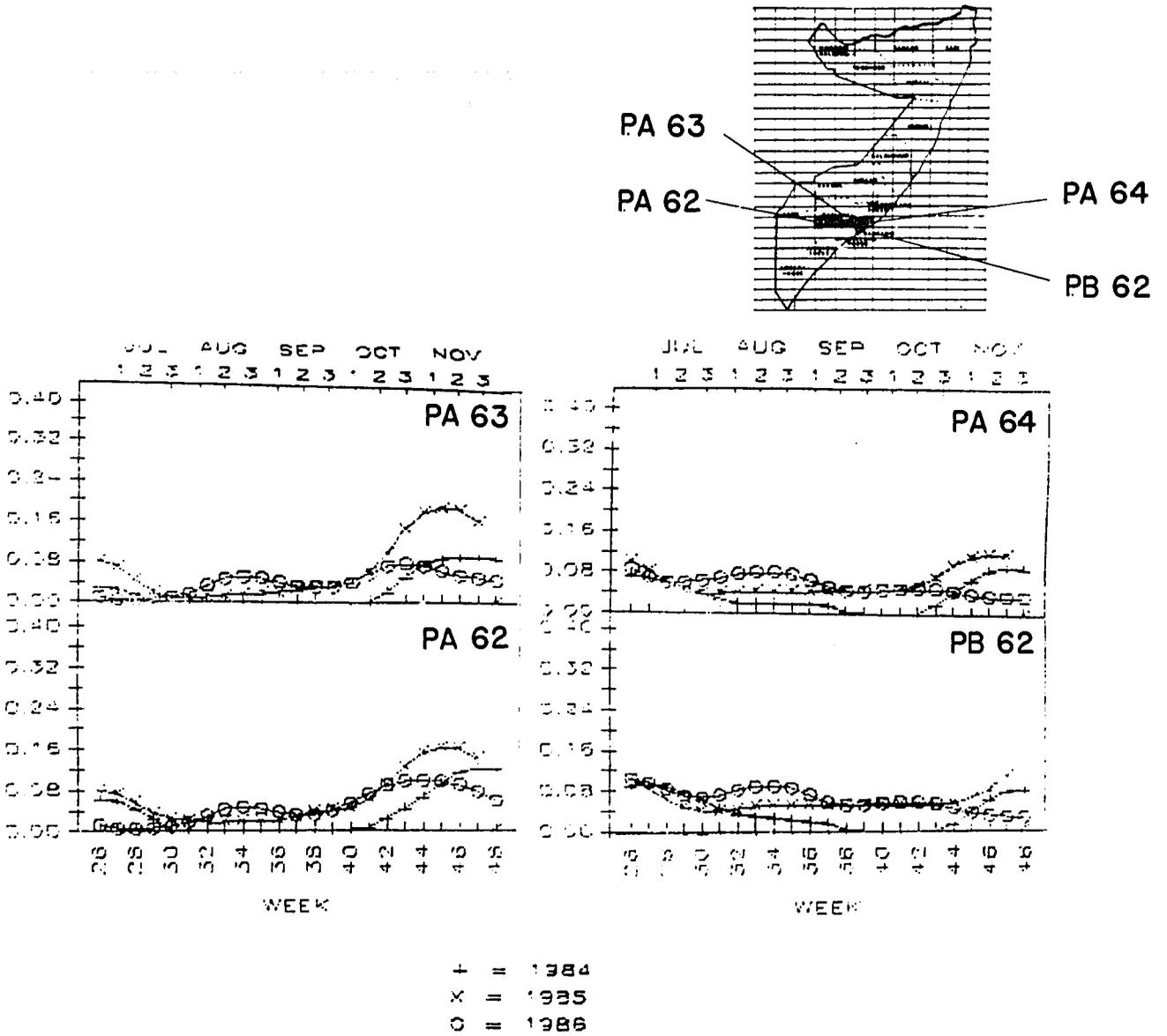


Fig. 2. Normalized Vegetation Index Time Series

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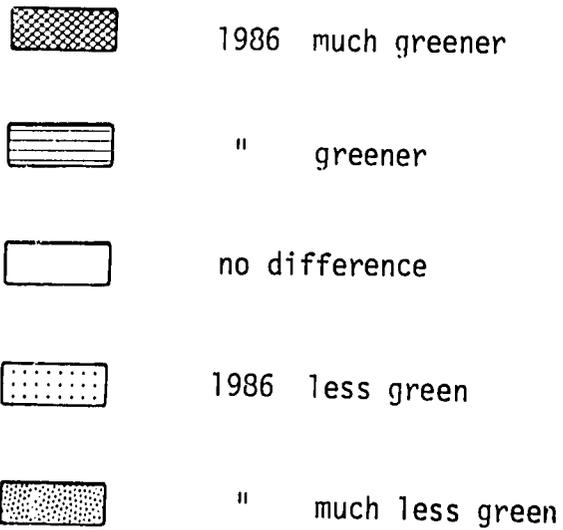
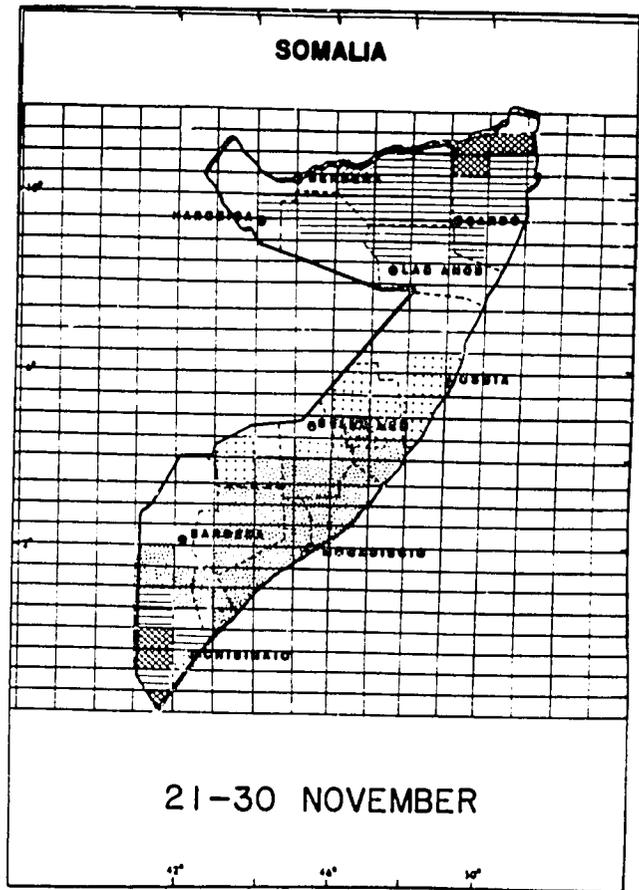
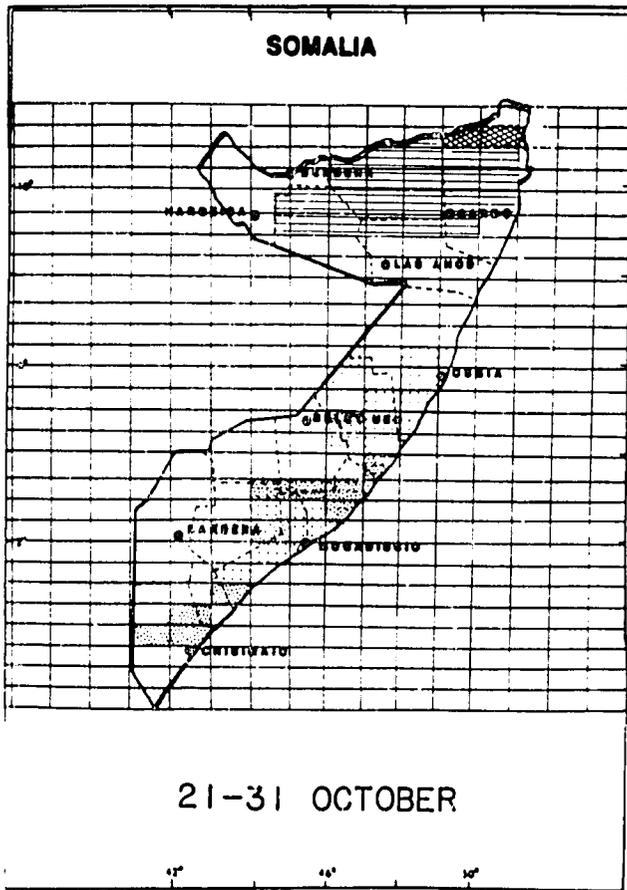


Fig. 3. 1936 Versus 1985 Normalized Vegetation Index

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