The Netherlands Indian Ocean programme was carried out with the RV Tyro in the NW Indian Ocean, the Arabian Sea and off Kenya and Seychelles, during 1992-1993, with the objective "to study the effect, on both spatial and temporal scales, of the monsoon on the climate system in the modern Indian Ocean". Topics covered include: the effects of the seasonally reversing monsoonal system on coastal ecosystems; the dynamics of the pelagic system; the spatial and temporal variability of parameters that define on an upwelling system, with a view to recognition in the sedimentary record; palaeobiogeography; depositional architecture; the biology of oceanic reef systems. Preliminary results of these studies were discussed at an Arabian Sea workshop held at NIOZ, Texel, the Netherlands from 13-16 February 1995. The papers in this Special Issue form the first group of results from the programme.

Jacco Kromkamp et al. -- Primary production by phytoplankton along the Kenyan coast during the SE monsoon and November intermonsoon 1992, and the occurrence of *Trichodesmium* -- 1195-1212

Matthijs Van Couwelaar -- Zooplankton and micronekton biomass off Somalia and in the southern Red Sea during the SW monsoon of 1992 and the NE monsoon of 1993 -- 1213-1234

Nico K. Goosen, Pieter Van Rijswijk, Monique De Bie, Jan Peene and Jacco Kromkamp -- Bacterioplankton abundance and production and nanozooplankton abundance in Kenyan coastal waters (Western Indian Ocean) -- 1235-1250

Matthijs Van Couwelaar, Martin V. Angel and Laurence P. Madin -- The distribution and biology of the swimming crab *Charybdis smithii* McLeay, 1838 (Crustacea; Brachyura; Portunidae) in the NW Indian Ocean -- 1251-1280

R. P. M. Bak and G. Nieuwland -- Seasonal variation in bacterial and flagellate communities of deep-sea sediments in a monsoonal upwelling system -- 1281-1292

G. C. A. Duineveld et al. -- Benthic respiration and standing stock on two contrasting continental margins in the western Indian Ocean: the Yemen-Somali upwelling region and the margin off Kenya -- 1293-1317

Hein P. J. De Wilde and Willem Helder -- Nitrous oxide in the Somali Basin: the role of upwelling -- 1319-1340

Erica Koning et al. -- Settling, dissolution and burial of biogenic silica in the sediments off Somalia (northwestern Indian Ocean) -- 1341-1360

Hilde F. Passier, George W. Luther III and Gert J. De Lange -- Early diagenesis and sulphur speciation in sediments of the Oman Margin, northwestern Arabian Sea -- 1361-1380

Stephen M. Theberge, George W. Luther III and Anna M. Farrenkopf -- On the existence of free and metal complexed sulfide in the Arabian Sea and its oxygen minimum zone -- 1381-1390

A. M. Farrenkopf, G. W. Luther III, V. W. Truesdale and C. H. Van Der Weijden -- Sub-surface iodide maxima: evidence for biologically catalyzed redox cycling in Arabian Sea OMZ during the SW intermonsoon -- 1391-1409

Karin A. F. Zonneveld -- Dinoflagellate cyst distribution in surface sediments from the Arabian Sea (northwestern Indian Ocean) in relation to temperature and salinity gradients in the upper water column -- 1411-1443

Corinne Sonzogni et al. -- Core-top calibration of the alkenone index vs sea surface temperature in the Indian Ocean -- 1445-1460

Frauke Rostek, Edouard Bard, Luc Beaufort, Corinne Sonzogni and Gerald Ganssen -- Sea surface temperature and productivity records for the past 240 kyr in the Arabian Sea -- 1461-1480