
EXECUTIVE SUMMARY

In **January** of 1991 Severe Tropical Cyclone Joy crossed the eastern Australian coast near Ayr, Northern Queensland. Subsequently the cyclone **turned** into a rain depression, causing widespread flooding throughout various sections of the Fitzroy River catchment. Over **1000mm** was **recorded** in the headwaters of the Connors River.

Extensive flooding occurred throughout the region and more than 18.5 million megalitres of runoff escaped down the Fitzroy River and into Keppel Bay.,

In response to this major environmental perturbation the Queensland National parks and Wildlife Service undertook an extensive monitoring program to evaluate the impact of flooding on the marine environment.

During the development of this project it became clear that other individuals and **organisations were also** monitoring the effects of this event.. Some were involved in estimating the effects on agricultural production, others the costs of additional welfare or emotional support, whilst others were considering **personal impacts**.

In an endeavour to consolidate this information and establish an overall measure of the impact of flooding the Queensland National parks and Wildlife Service **organised** this Workshop which was held in Rockhampton on 27 September 1991.

At the workshop consideration was given to the impacts of the floods on social, economic, physical and biological parameters.

Fifteen papers were presented in the morning session for the information of all participants. In the afternoon session, participants divided into three working groups to discuss the specific impacts on the aquatic, terrestrial and human environments. Each working group was requested to consider similar matters and report back to the forum in the late afternoon.

As you might expect, **all** groups were readily able to identify negative impacts of the flood. A few positive impacts were however recorded in the aquatic environment, with the opening of migratory pathways and the expansion of available breeding sites being suggested as likely outcomes.,

Many of the impacts were the direct result of the physical actions of the mainstream flood flow. Loss of soil, estimated to be about 18 million tonnes, and damage to riparian vegetation were considered to be the most serious loss to the terrestrial system, whilst the **final** deposition of these same materials caused the major impact **on the** aquatic environment.

All groups identified effective transfer and availability of information as the key to minimising the future impacts of major flooding events such as this. In particular, it was noted that there was a general lack of baseline data against which comparisons and evaluations could be made. It was considered important to establish these baselines and develop appropriate long-term monitoring strategies for thorough evaluation and assessment of impacts.

Modelling studies were seen as desirable to indicate the range of impacts and **areas** of effect that could be expected in any given circumstance. These models and the baseline data could then be utilised to develop appropriate response kits for management agencies, landholders and other individuals likely to be effected.

It was noted that the Emergency Services of the region have already prepared such plans, however continued evaluation of these plans was necessary to ensure minimise risk to life and property.

In summary, the participants agreed that the process of managing an emergency such as this flood event can be divided into a number of phases:

a) Prevention

Whilst it is not possible to control the forces of nature it may be possible to prevent or reduce future impacts by improved planning and management, and in some cases changes in land use practices.

b) Preparedness

An improved information network should enable managers, landholders and individuals to be more prepared. With response plans available there **should be no confusion** as to the **appropriate course** of action for each situation.

c) Response

The response plans should facilitate more efficient and effective responses to flood situations, thereby minimising impacts.

d) **Recovery**

This phase should also **be** considered in the development of the response plans. The objective of the first three phases should be to **minimise** this phase, so that conditions may return to 'normal' in the shortest possible time.

