

EXAMPLE

Concept of Operations South African Flash Flood Guidance System (SAFFG)

1. INTRODUCTION

<Describes the responsibilities and operational processes of the SAFFG system in SAWS>

2. BACKGROUND

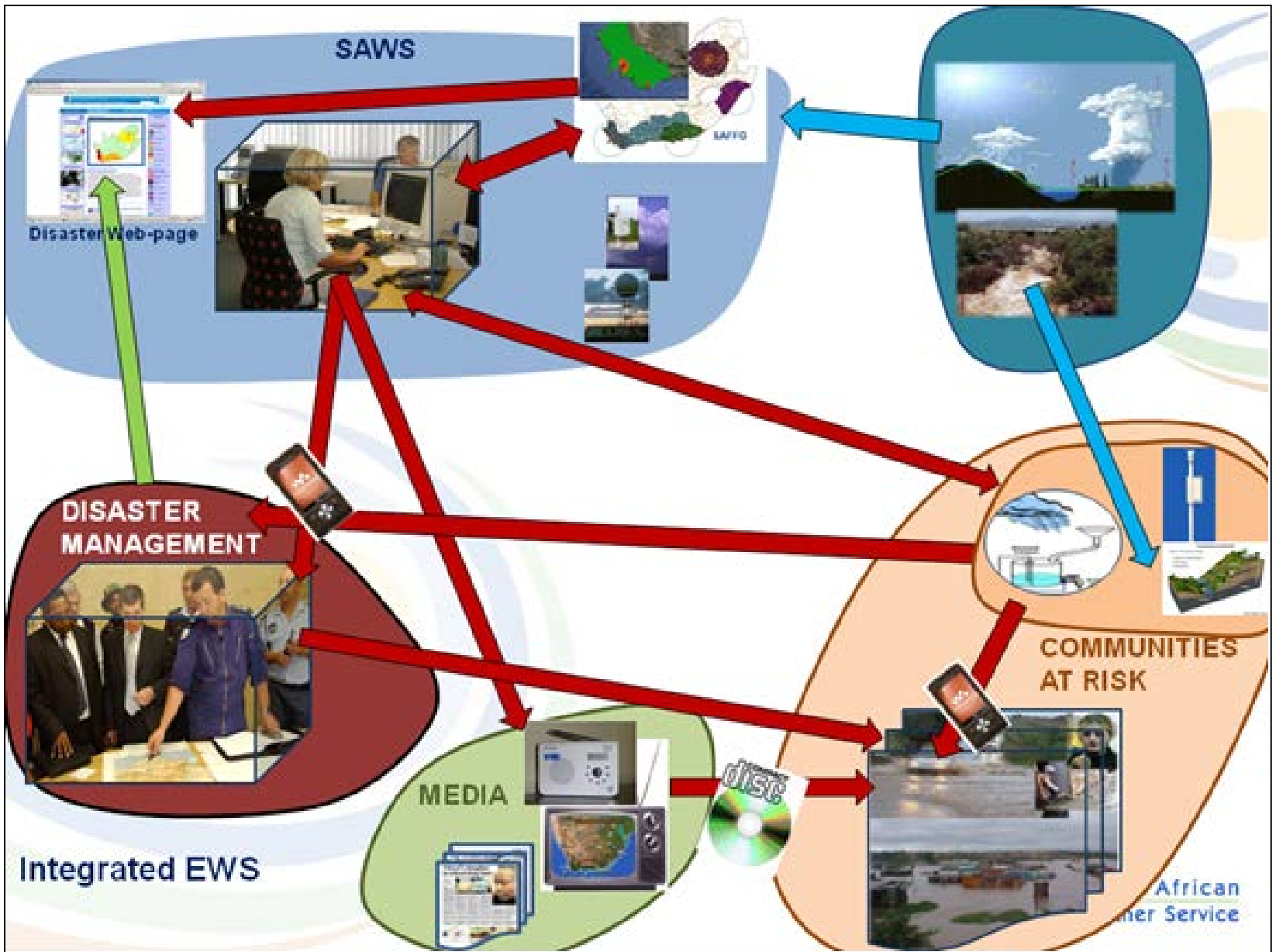
2.1. Warning of Flash Floods in South Africa

2.2. Basic Description of the System

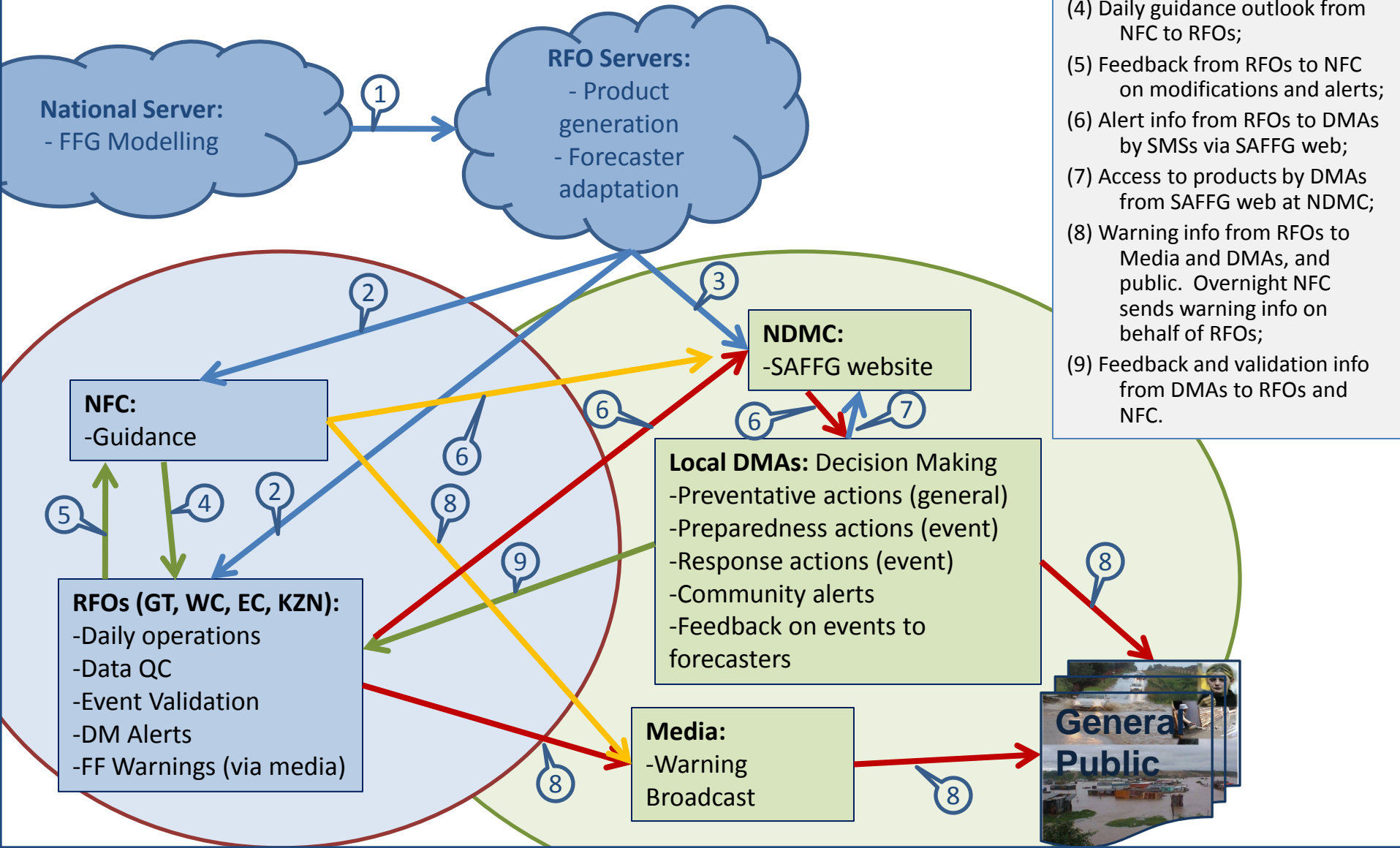
3. SAFFG OPERATION AND INFORMATION FLOW

3.1. Operation of the SAFFG

3.2. Information Flow



Information flow and Institutional Interaction



- (1) Model output hourly from main server to regional servers;
- (2) Processed images and text hourly to NFC and RFOs;
- (3) Text files hourly to SAFFG DMA webpage at NDMC;
- (4) Daily guidance outlook from NFC to RFOs;
- (5) Feedback from RFOs to NFC on modifications and alerts;
- (6) Alert info from RFOs to DMAs by SMSs via SAFFG web;
- (7) Access to products by DMAs from SAFFG web at NDMC;
- (8) Warning info from RFOs to Media and DMAs, and public. Overnight NFC sends warning info on behalf of RFOs;
- (9) Feedback and validation info from DMAs to RFOs and NFC.

4. RESPONSIBILITIES OF OPERATIONAL COMPONENTS

4.1. National Forecasting Centre (NFC) as the national guidance centre:

4.2. Regional Forecasting Offices (RFOs):

4.3. National Disaster Management Centre (NDMC):

4.4. Provincial and Municipal Disaster Management Centres (PDMC and MDMCs):

5. RESPONSIBILITIES OF SUPPORT STRUCTURES

5.1. SAWS ICT and Technical Components

5.2. SAWS Research

5.3. DWA Hydrology

Institutional Responsibilities

Operations Components

NFC:

- Guidance ops
- Overnight Nat ops
- National event validation consolidation

RFOs (GT, WC, EC, KZN):

- Daily operations
- Data QC
- Event Validation

NDMC:

- SAFFG DMA website
- Dissemination

Local DMAs:

- Preparation
- Response
- Validation info source

Support Components

ICT and Technical Maintenance:

- Computer system maintenance
- Radar, satellite and rain gauge systems
- Archiving

SAWS Research:

- Radar, satellite and rain gauge QC
- Developments in nowcasting and forecasting

Hydrology:

- River level info
- Soil moisture validation
- Hydrological expertise

6. ROUTINE OPERATIONS

6.1. Hours of Operation

6.2. FFG Product Overview

6.3. Preliminary evaluations

6.3.1. Meteorological evaluations

- *Previous, current, forecast*
- *Radar operations*

6.3.2. Hydrological evaluations

- *Stream conditions*
- *Reservoir levels*

6.3.3. Quantitative precipitation forecasts

6.4. FFG Product evaluations and applications

6.5. Information dissemination

6.6. Routine bulletins

6.6.1. Guidance bulletin

6.6.2. Daily FFG validation report

6.7. Alerts

6.7.1. DMA message (SMS/Email): Watch / Warning

6.7.2. Public bulletin: Watch / Warning

6.8. Reporting requirements

6.9. System validation

7. STAFF TRAINING

7.1. Forecaster Training

7.2. Disaster Management Training

8. NON-ROUTINE OPERATIONS

8.1. Operations during unusual event

8.2. Dam failures

9. OUTREACH

9.1. General public

9.2. Disaster managers:
