



Effective use of HF/VHF/UHF radio communications in disaster relief

ITU/ESCAP Regional Workshop in Disaster
Communications

Bangkok, December 2006

Robert Kasca

ICT Emergency Response Unit, WFP Rome
robert.kasca@wfp.org; Mob: +39 340 574 3870





WFP Information and Communication Technology

Agenda

- Emergency Telecommunications Cluster
- WFP's Role in ETC
- How do we do it?

Response to emergency

Overview of technologies

- Scope of deployment
- Management of HF/VHF/UHF radio networks
- A brief look into the future





WFP Information and Communication Technology

Emergency Telecommunications Cluster - ETC

- In September 2005 cluster leads were established in 9 areas, including Emergency Telecommunications
- ETC is a “joint venture” between OCHA as the process owner, WFP as the service provider for Security Telecommunications and UNICEF as the service provider for Data Communications
- Cluster approach at global level aims at:
 - Establishing and strengthening surge capacity and standby rosters
 - Securing consistent access to appropriately trained technical expertise
 - Establishing or improving material stockpiles
 - Improved response capacity through pooling of effort and resources.



WFP Information and Communication Technology

WFP's Role in the ETC

- Support the Process owner, through the WGET, in the development of standard operating procedures, technical standards, the definition of E.T. services and training modules;
- Maintain security telecommunications equipment stock and standby personnel to ensure a predefined level of Inter-Agency readiness for emergencies, as requested by the Process Owner
- Respond to requests for emergency deployment within the predefined response time
- Provide senior ICT staff to conduct assessments at the onset of emergencies and act as local Head of ETC
- Act as provider of last resort by designing and deploying the Security Telecommunications backbone, managing the network and assisting other UN agencies and NGOs.



WFP Information and Communication Technology

Response to Emergency

- Immediate assessment, usually within 24/48 hours of the beginning of emergency, conducted by our staff
- Design of a Security Telecommunications radio system either by building it from scratch or by upgrading/enhancing existing systems
- Mobilization of resources (staff and equipment), usually from our Support office in Dubai
- Deployment and management
- Training of users
- Hand-over and Closure





WFP Information and Communication Technology

Overview of Technologies

- Security Telecommunications are based on proven, low-cost analogue technologies
- Equipment used is standardized among WFP and most UN agencies through Long Term Agreements with suppliers
- For VHF/UHF Motorola GM/GP family of radios is used
- For HF either Codan SRx or Barrett radios are used
- All back-bone radio systems are backed-up by solar power systems and/or generators





WFP Information and Communication Technology

Scope of Deployment

- WFP, as part of its ETC mandate, deploys the following independent security telecommunications infrastructure and services:
 - Equipment procurement for the network backbone
 - VHF/UHF repeater network
 - 24/7 operational communications centers to monitor and manage all networks
 - Staff and vehicle tracking
 - Emergency Telecommunications Cluster coordination on field level
 - Technical assistance and training to other UN agencies and NGOs





WFP Information and Communication Technology

Management of HF/VHF/UHF radio networks



- Radio networks are effectively managed through the following procedures:
 - Monitoring of all HF/VHF/UHF networks / frequencies used by UN and NGOs
 - Radio-room standard operating procedures
 - Application of standard call-signs which uniquely identify users by agency, location and function within the organization
 - Application of standardized selective calling on HF, identifying stations according to their geographical location, area of operation and agency
 - Use / development of standard programming code-plugs for all radios



WFP Information and Communication Technology

A Brief Look into the Future

Requirements:

- Bring extra value to the user by offering other services (messaging, easy access to telephone networks, etc..) on the radio networks in addition to voice for security purposes
- Reduce overall telecommunication costs in emergency deployments

Time frame:

- With already existing digital technologies and emerging ones this goal should be achieved in the near future





WFP Information and Communication Technology



Thank You!