Learn more about RANET and its partners by visiting http://www.ranetproject.net. The website contains country reports, links to our partners, a list of previous and upcoming meetings, news coverage, and a variety of other information.

To contact us directly with inquiries, feedback, and requests please use one of the following e-mail addresses:

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- Africa, africa@ranetproject.net
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- Pacific, pacific@ranetproject.net
- Technology Inquiry, systems@ranetproject.net
- Webmaster, website@ranetproject.net
- Help Support RANET, partner@ranetproject.net

RANET is a truly international collaboration relying primarily on the guidance and support of National Hydro-Meteorological Services, related national entities, and development NGOs. Primary program support and management has been through the African Centre of Meteorological Applications for Development (ACMAD, Niamey, Niger), the Cooperative Institute of Mesoscale Meteorological Studies (CIMMS, University of Oklahoma, USA), the US Agency for International Development Office of Foreign Disaster Assistance (USAID-OFDA), and the US National Oceanic and Atmospheric Administration (NOAA) National Weather Service International Activities Office (NOAA-NWS-IAO) and NOAA Research Office of Global Programs. (NOAA-OAR-OGP). Significant technical and network support has been provided by the WorldSpace Foundation, Wantok Enterprises Limited, the FreePlay Foundation, and Volunteers In Technical Assistance. Additional funding and content support has been made available through Meteo-France, the UK Met Office, the National Meteorological Service of Spain, the French Embassy of Niger, the United States Embassy of Niger, FAO, UNDP, SNV, and FMA-FIRENZE (Italian Foundation for Meteorological Applications). RANET's most valuable support and guidance has been through the local communities of Niger (In particular, Bankilare was the first community to establish a locally managed RANET program.) and the network development within the Republic of Uganda at the direction of the Ministry of Water, Lands and Environment.

Potential partners in Asia include the Asian Disaster Preparedness Center (ADPC) and the ASEAN Specialized Meteorological Service (ASMC). Additionally, through support of the NOAA National Weather Service International Activities Office's contribution to WSSD Type II Outcomes, RANET is examining potential applications and role on new systems in the Pacific.

Presentation materials produced by the US National Oceanic and Atmospheric Administration in support of the international collaboration of RANET. Text and content provided by the US National Oceanic and Atmospheric Administration Office of Global Programs, USAID Office of Foreign Disaster Assistance and USAID EGAT/Office of Women in Development. Photographs taken by K. Sponberg and M.S. Boulahya.

RANET

New Radio and Internet Technologies for the Communication of Hydro-Meteorological and Climate Related Information for Rural Development

RANET

Using Science and Technology for People, the Environment, and Development

RANET helps build a radio-internet pathway between scientific results and individuals in remote locations for whom information might matter tremendously.

WHO WE ARE.....

RANET combines the efforts of several partners to make climate and weather related information more accessible to rural populations and communities. In some regions of the world, the timing or amount of rainfall in a particular season has a meaningful influence on human welfare. RANET helps build a radio-internet pathway between scientific results and individuals in remote locations for whom information might matter tremendously. The program currently operates in Africa and is exploring appropriate roles in Asia and the Pacific.

We accomplish our goal through a variety of activities intended to improve the access of extension and meteorological agencies to climate and weather related material, while also developing a system through which meteorological services can disseminate their own information to rural communities. Simply, RANET endeavors to make available to national, regional, and local levels the tools and information of decision-making.

All activities of RANET are done in conjunction with, and with the approval of, the communities themselves and national meteorological and associated services. RANET is not a separate entity, but one consisting of participating National Hydro-Meteorological Services (NHMSs) and development partners who can benefit from the RANET initiatives and/or who wish to improve the program by contributing resources and expertise.

"Radio 'Is the Missing Link in the Development Chain.' "
- S. Ursino, 2002, Wall Street Journal

WHY WE DO IT.....

Climate and weather play a vital role in activities such as agriculture, health, wildlife management, disaster mitigation, and energy production to name a few. Technological and scientific advances in recent decades have provided us not only with a good understanding of our climate and weather, but also with a wide variety of observations and forecasts that can be used in efforts to manage systems sensitive to meteorological events. Although such information cannot be considered a panacea for managing disasters or increasing productivity, it can often be of great value, particularly when attempting to mitigate negative impacts.

Yet, at present, many rural populations most in need of hydro-meteorological and environmental information are not able to access the information already produced by national, regional, and various international organizations. It is for these reasons that the RANET Program was created and designed to specifically address information access and interpretation in support of rural communities. Through this process, the capacity of National Hydro-Meteorological Services and related national institutions is strengthened.

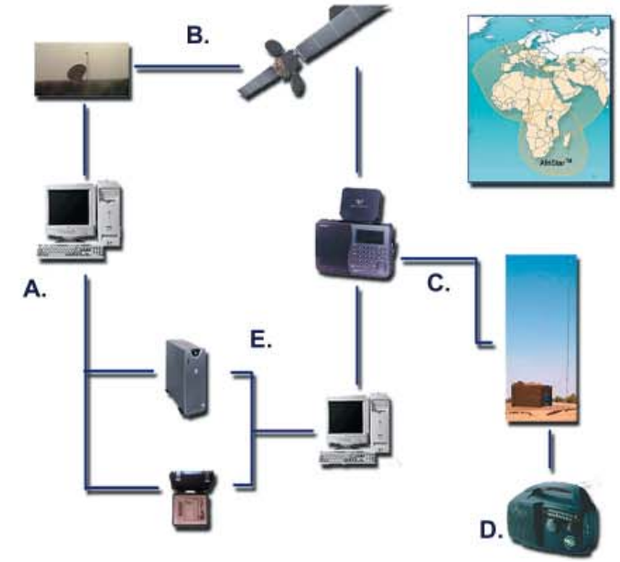
HOW WE USE TECHNOLOGY.....

RANET works to identify and train partners in the use of various technologies that are most appropriate for their information needs and are serviceable in their area. Aside from identifying a variety of techniques, RANET works to gain access for rural populations to "common networks" -- large systems likely inaccessible by any one group, but usable by RANET and its partners when used together. Additionally, RANET works to integrate existing networks thereby reinforcing local, existing capabilities -- rather than developing new, resource intensive and unstable networks.

In Africa one of the more successful systems has been an integration of new and existing analogue (FM/AM) radio stations with new digital radio satellite technologies, as provided through the WorldSpace Foundation. Combined together these technologies allow for both local knowledge and new information to be used in support of rural populations. Radio is one of the most pervasive technologies in use throughout the globe, and RANET's inclusion of radio in its network design helps to ensure the program builds upon existing capabilities, is community owned and operated, locally relevant, and is therefore more sustainable.

Many development projects with a component of telecommunications technology are vulnerable unless appropriate and sustainable solutions are identified and deployed. The lessons learned by RANET underscore the need for a period of consistent follow-up and technical support until the introduced systems, or new integrated networks, can be fully supported locally (or within a region), and therefore be considered sustainable. Such a transition period means identifying serviceable technologies, identifying existing networks and capabilities, training, and the development of a support community. For this reason RANET is embarking on new education and training programs, which allow participants to solve problems that arose during implementation (including revenue generation and sustainability), learn from each other's experiences, and build upon the basic knowledge gained in the initial training sessions and project development.

"Small Amounts of Help At Crucial Moments Can Tip the Balance Toward Successful Outcomes"
- J. Sachs, 2001, The Washington Quarterly



A) INTEGRATION: Global, regional, national, and local information is gathered from various producers through different methods and then blended into single presentation that is compatible with the WorldSpace Foundation digital radio satellite broadcast.

B) DISSEMINATION: The compiled information is then sent via the internet to a satellite uplink station located in South Africa. Some of this information is automatically updated while other requires manual uploading. At the top of nearly every hour the uplink station sends the uploaded information to the satellite for broadcast over all of Africa.

C) INTERPRETATION: The broadcast can be used by meteorological services, extension agencies, or even local communities who might use the content to improve their own products or to translate information into the local language and according to local interest.

D) LOCALIZATION: Information is then disseminated through traditional and existing networks – radio or human – to ensure that it is in local languages and of local relevance.

E) FEEDBACK: RANET uses a variety of technological and non-technological means to ensure feedback is received to build a better network. Some of this is done through training workshops, person to person contact, as well as the placement of web services. RANET is also exploring the various two-way technologies, such as the VITA PGS which would allow rural communities and extension agencies to send information requests, provide feedback, and receive technical support directly from their NHMS.