

2010 ANNUAL REPORT



INTERNATIONAL ENVIRONMENTAL DATA RESCUE ORGANIZATION

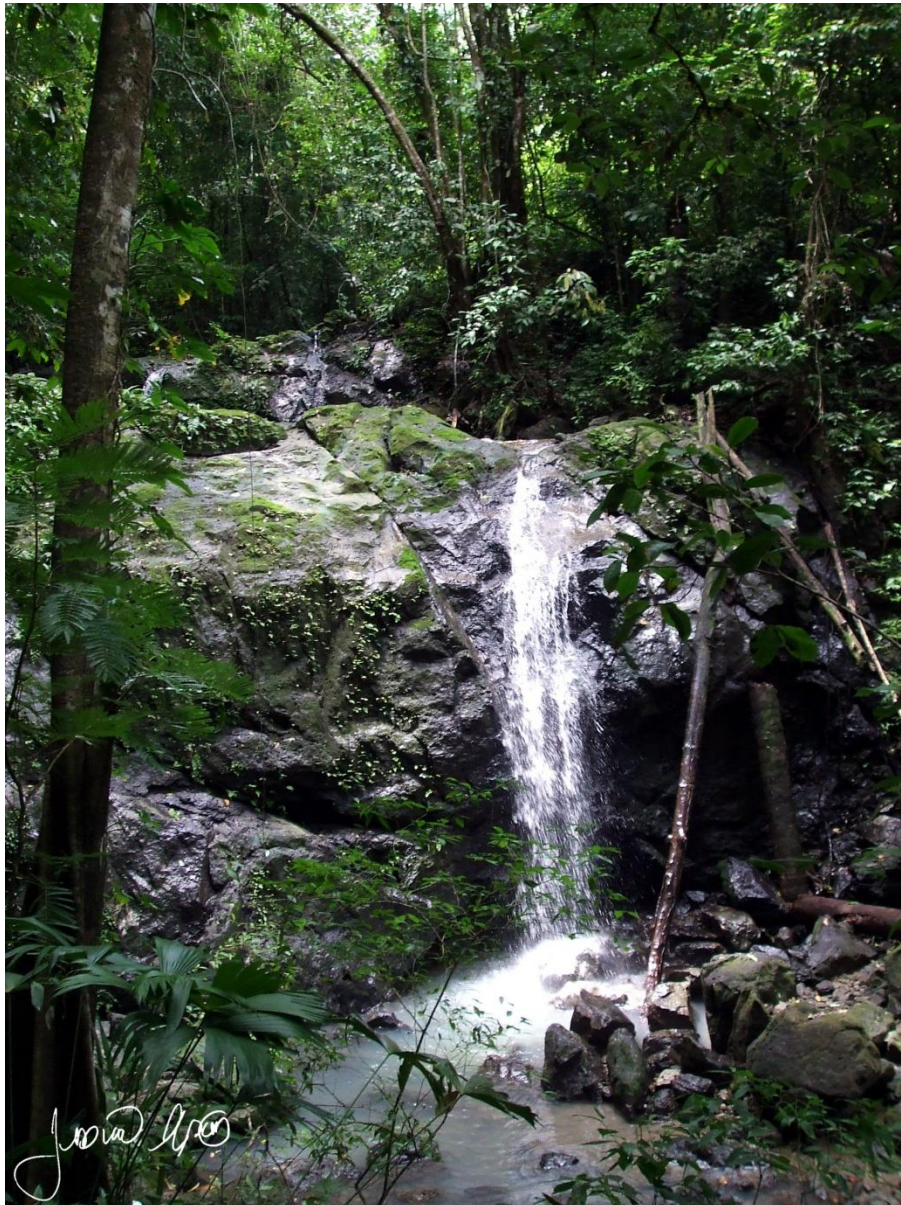


TABLE OF CONTENTS

Table of Contents	<i>i</i>
Message from the Executive Director	1
What We Do	2
The Problem	2
Our Purpose	2
Why What We Do Is So Important	3
Global Warming	3
Halt Disease Spread	4
Accurate Flood Forecasts	4
Starvation Prevention	4
Safer Structures	5
Our Understanding of History	5
Result Summary	6
Resources	8
Organizational Chart	8
Roster of Current Employees/Volunteers	9
Help Wanted	11
Finances	12
Income and Expenses Summary	12
The People We Affect	16

MESSAGE FROM THE EXECUTIVE DIRECTOR

Born April 12, 2005, IEDRO charged ahead with environmental Data Rescue and Digitization (DR&D) projects in the poorest areas of the world. We, with our colleagues at NOAA's National Climatic Data Center, rescued and digitized nearly 1,500,000 historic weather observations from over a dozen countries. Sounds like a lot, doesn't it? Not when humanity loses nearly that many every three weeks due to deteriorating paper, fading microfiche, or just being tossed out.

Economic changes hit hard during the recent years. Humanity will be feeling the effects for years with high unemployment, foreclosures and a lower standard of living.

Unfortunately, this economic climate has dramatically lessened ability for developing countries to preserve the centuries of historic weather observations that are the foundations for the world's environmental models. **These are the models that reduce preventable deaths and injuries from extreme environmental events throughout the world.** These models predict climate change, the spread of disease, occurrence of floods and the frequency of drought and resultant famine and hundreds of other applications.

Countries, now barely able to feed their citizens, have no funds to rescue these data so critical to improving the lives of all people, data taken by thousands of observers over hundreds of years; data lying nearly forgotten and dying.

We need your help now or most of this critical data will be lost forever...there is no back up, nothing in reserve. These are one-of-a-kind records which are dying at phenomenal rates.

Please join us to save these records by sharing your time, your money, your energy and enthusiasm. Tell your neighbors, family, friends about the critical work we do and how they could help. Let your Representatives and Senators know that you not only want the small amount of government funding IEDRO receives continued but increased to meet this vital need.

If we don't work together now, the data will be lost forever.

WHAT WE DO

The Problem

Large volumes of hydro-meteorological data exist in non-digitized and inaccessible form. Such data are at risk of simple disintegration and decay, or are being discarded because paper-based records take up valuable office space. These records have the potential to fill in large gaps in the global climate record, particularly in developing countries where records are fragmentary.



Our Purpose

IEDRO is at the forefront of environmental management. Our volunteers want to create a safer and healthier global society. We do this by collecting historical environmental data that is in danger of destruction and ensuring it is made available to scientists worldwide.

We strive to rescue and digitize at-risk historical environmental data throughout the world by:



1. Locating and rescuing weather and other environmental data stored on perishable media;
2. Digitizing historical environmental data; and
3. Ensuring the digitized data are available for operational and research applications to its host country as well as to the international scientific community.

WHY WHAT WE DO IS SO IMPORTANT

The data rescued by the International Environmental Data Rescue Organization (IEDRO) enables the meteorological and scientific communities to provide more accurate severe weather forecasting and to understand climate change. This knowledge offers the world community a greater ability to more accurately predict long-range weather patterns, and thus it enables meteorological professionals to:

1. Better understand the nature and extent of global warming and climate change, as well as the rate at which our climate is changing.
2. Prevent the spread of airborne and insect-borne disease.
3. Provide more accurate lifesaving flood forecasts.
4. Prevent famine and starvation.
5. Construct and reinforce buildings, bridges, and public services to withstand predicted severe weather.
6. Gain a clearer understanding of human history.

Global Warming

Before mankind can take safe living conditions for generations, we first must local and global. Continuous support scientific inquiry. data, scientists can build information downloaded into of local and global predictions collection and rescue are understanding of a changing



measures that will ensure ourselves and future understand climactic change, gathering of data will Using historic environmental computer models. As the model increases, the accuracy will also increase. Data essential requisites to our environment.

Halt Disease Spread

Weather conditions can of bacteria and organisms borne diseases. including mosquitoes, can as Malaria and the West gathering weather data, history of disease can scientists and health future outbreaks and measures.



encourage the growth that spread severe air- Additionally, insects, spread diseases, such Nile virus. By we can study the outbreaks. Only then officials anticipate institute preventative



Accurate Flood Forecasts

With the exception of starvation, more people die from flooding than any other single cause. Extensive data is required to ensure weather forecasts have high levels of accuracy. When data spanning over decades is provided, scientists can identify calamity prone areas and develop appropriate warning systems, helping residents to adapt and foresee changing flood patterns. Those living in the U.S.

benefit from accurate data and analysis. Developing countries would similarly benefit if forecasts were highly accurate and, more importantly, if advanced warnings of weather and flooding were possible.

Starvation Prevention

Over 2 million people could be saved annually from starvation if one farmer out of a thousand had an accurate sense of drought frequency. Several decades of information are necessary before forecasts can be accurate. Data collection is part of a low-cost approach that will address outbreaks of famine.



Safer Structures



If we can anticipate what the weather is likely to be, bridges, buildings, houses, and other structures can be designed to withstand extreme weather. Historic data allows engineers and architects to anticipate extreme conditions and environmental stressors, thereby making structures that protect life and property for generations to come.

Our Understanding of History



Weather affects every aspect of daily living. A storm in 1588 saved England from attack by destroying the entire Spanish Armada. The French Revolution probably would not have happened in 1788 had it not been for harsh weather that froze water reserves and caused a drought in the same year. The Russian winter during, both the Napoleonic and Nazi invasions, defeated invading armies. Historical weather information can deepen our understanding of history and provide insights as to what our future may hold.

RESULT SUMMARY



In our first five years, we started data rescue and digitization (DR&D) projects in a dozen developing countries, in Africa, South America, Central America and the Caribbean. Through the efforts of US and foreign volunteers, the world was given **1.5 million** historic weather records most of which have been digitized and entered into the World Weather Data Base operated by the U.S. National Oceanic and Atmospheric Administration (NOAA) National Climatic Data Center (NCDC) in Asheville, North Carolina and readily available to the world's scientists, researchers and educators.

IEDRO established its presence in the world hydrometeorological community as a significant contributor and innovator in the international DR&D effort. Our International Data Rescue News (IDRN) bimonthly newsletter, begun in 2005 is the only publication devoted exclusively to environmental data rescue and the applications those data have in the world.

Our DR&D IEDRO web site provides information on programs, countries, other DR&D efforts worldwide and solicits funds and volunteers to continue this critical work.

The efforts of over 60 international volunteers, funding from NOAA and the World Meteorological Organization, charitable foundations and private individuals keep this program alive and growing.

However, impressive as it seems, rescuing those 1.5 million records only scratched the surface of the data that are dying at an unforgivable rate. In many countries, their national weather services continue to destroy old records to claim additional office space, or eliminate infestation by insects and rodents. In a few countries, the paper records are still used to start cooking fires.

For these reasons, and due to a worsening financial situation throughout the world, IEDRO must expand its charter beyond showing countries how to photograph their old records to send to us for digitization. Our next five years must evolve with the times.

Our next five years, must continue our support to the original 12 countries DR&D efforts. If we are to have any hope of rescuing the majority of the world's historic data at risk, we must expand these efforts into 25 additional countries, primarily throughout Africa, Central and South America but also for the first time throughout Asia and the South Pacific Islands..

IEDRO will expand its educational and training efforts to convince the historic data owners that these valuable records must be rescued and digitized for the good of their own organizations, their countries and all humanity. We will also convince them that these records must be made openly available to the entire world for the betterment of everyone and not held back hoping that someone will come by and buy them. In that regard, IEDRO will enter into DR&D agreements with the data owners that provide them with training and software to allow them to produce value-added products that they can market, if they allow us to rescue and digitize their data and make it openly available to the world community.

IEDRO recognizes the fragility of continued U.S. Government funding both to IEDRO to sustain our DR&D efforts [we have a NOAA Grant] and to NOAA's National Climatic Data Center which provides for the digitization of most of the data IEDRO rescues. For that reason, IEDRO is developing its own digitization programs, some patterned on the existing NCDC contractor efforts and others unique to IEDRO.

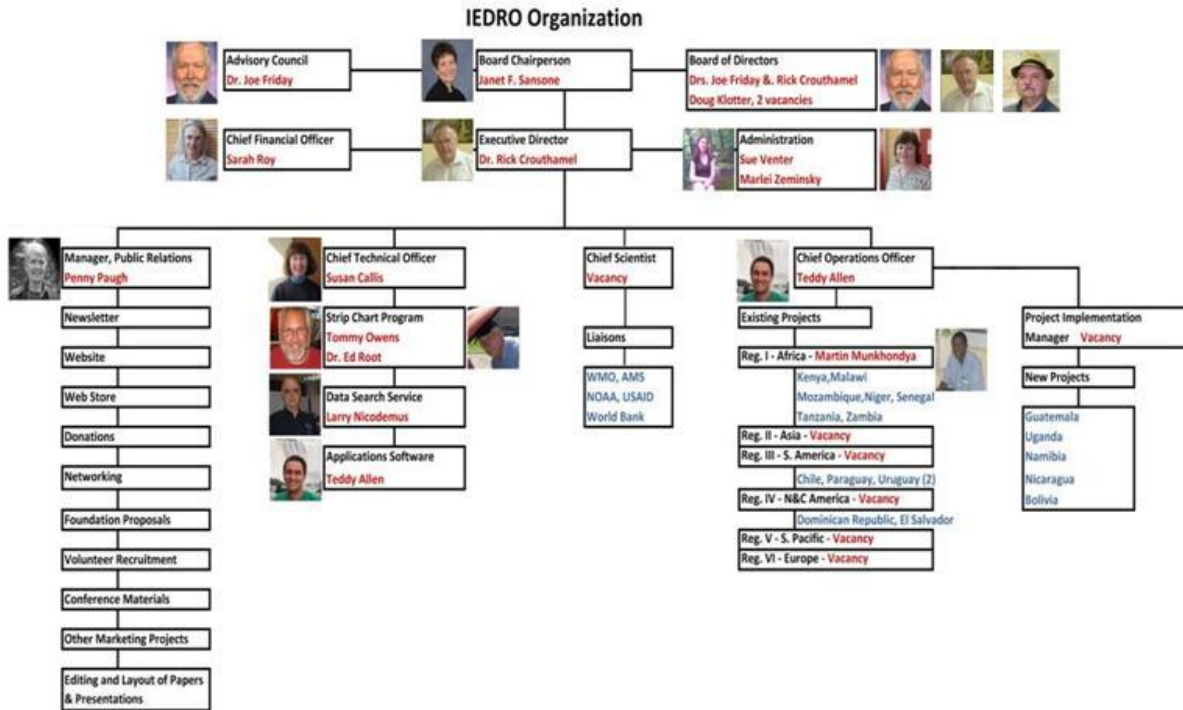
Our innovative digitization program efforts will include establishing data keying volunteers at IEDRO headquarters who will manually enter information from photographed data sheets.

Another program will enlist the efforts of thousands of Internet volunteers who will bring up weather records on their home computers and key those data into an on-line form for digitization.

A third effort, already well on its way to be operational, is the IEDRO Strip Chart Digitization Program which will take the scanned images of paper charts with continuous ink traces showing temperatures, pressure, precipitation and other variables as they change throughout the days, and digitize those records at 5 minute intervals. The program will reduce the time needed to digitize each day's records from 45 minutes manually to 45 seconds. Considering there are over 400 million of such charts throughout the world with historic weather information on them since the early 1800s, this one effort will add terabytes of data to the NOAA world database.

RESOURCES

Organizational Chart



Roster of Current Employees/Volunteers

Advisory Board		
	Elbert "Joe" W.	Friday
Chairperson of Board		
	Janet F.	Sansone
Executive Director		
	Richard I.	Crouthamel
Technical Team		
	Doug	McClelland
	Douglas A.	Klotter
	Ed	Root
	Larry	Nicodemus
	Jean-Paul	Miller
	Richard I.	Crouthamel
Technical Support		
	Doug	McClelland
	James	Watt
Project Management		
	Teddy	Allen
African Projects	Martin M.	Munkhondya
	Gavin	Roy
	Arthur	Judge
Financial		
	Sarah	Roy
Administration		
	Marlei	Zeminsky
	Sue	Venter
Technical Officer		
	Susan	Callis
Value Added Project		
	Teddy	Allen
Digitizer Program		
	Ed	Root
	Gang	Fu
	Haibing	Sun
	Tommy	Owens
	Yuan	Wei
Public Relations		
Manager	Pennell	Paugh
Translators		
<i>Spanish</i>		
	Dario	Di Franco
	Carolina	Meza
	Emilia	Grassi
	Gaviin	Roy
	Miriam	Munoz

<i>Portuguese</i>		
	Arthur	Oliveira
	Fabioano	Lopes
	Mark	Roberts
	Marina	Drazba
	Paola	Garcia
	Vivalda	Cordeiro
	Vivi	Da Silva
<i>Russian</i>		
	Nataliya	Gurshman
<i>Mandarin Simplified and Traditional</i>		
	Gang	Fu
	Lu	Valdimiano
	Lucy	Xie
<i>French</i>		
	Elisa	De Boni
	Marielle	Guirlet
	Mark	Roberts
	Virginie	Noel
Writers		
<i>Science Advisor</i>	Ned	Guttman
	Abdullah	Rahman
	Antonia	Rosati
	Dorothy	Hoffmann
	Kevin	Tsai
	Larry	Nicodemus
	Marielle	Guirlet
	Teddy	Allen
	Virginie	Noel
Editors		
	Andrea	McCarrick
	Aura	Lawson-Alonso
	Dorothy	Hoffmann
	Stephanie	Daslla
Fundraising		
	Pennell	Paugh
	Richard I.	Crouthamel
	Susan	Callis
Marketing		
	Kevin	Tsai
	Pennell	Paugh
	Pooja	Virkud
	Virginie	Noel-Silva

Web Team		
	Lu	Valdimiano
	Megan	Miller
	Silvana	Santana
	Stephen	Mollins
	Valerie	Mitchell
Graphic Design		
	Jake	Vallante
Networking Sites		
	Dot	MacKenzie
	Jake	Vallante
	Max	Mayers
	Pennell	Paugh
Photography		
	Fi	Brown
Photo Database		
	Penny	Paugh

Help Wanted

- 2 developers to help us make foreign language versions of our site. The site is in Dreamweaver as well as run our bi-monthly newsletter.
- Persons to join our Marketing team. We welcome project ideas. We need persons to distribute volunteer fliers in their local colleges.
- Coordinator for translation teams that are preparing website materials.
- Graphic designers who know Photoshop.
- Photography manager –help us find photos, make some as well, and keep a database of our old photos.
- Scientists who will write newsletter articles for us.
- Persons to develop and maintain networking sites.
- A Public Relations deputy manager – energetic, dedicated person desired.
- Scientist who will be a liaison between us and NOAA, other data rescue groups and possible sources of funding.

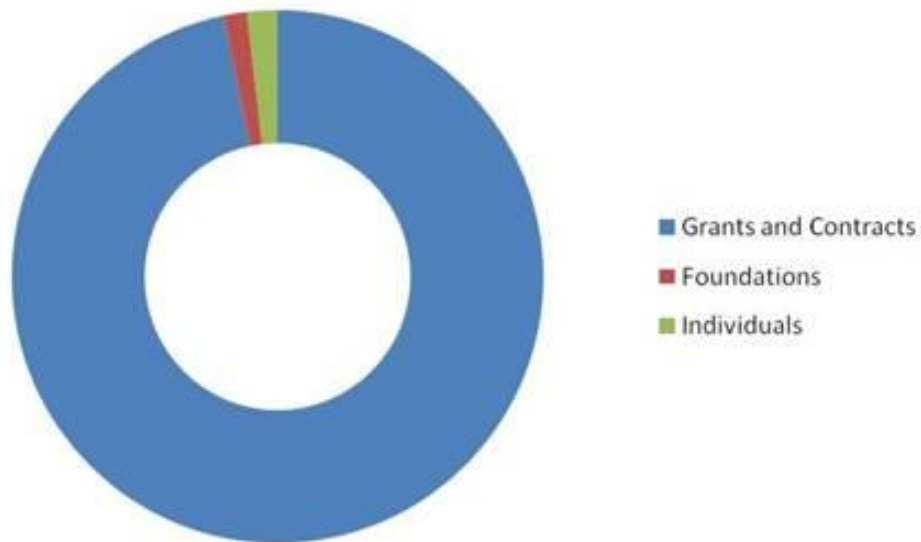
FINANCES

Income and Expenses Summary

IEDRO FINANCIAL INFORMATION

2010 SUPPORTER INFORMATION

Grants and Contracts	\$151,211
Foundations	\$2,241
Individuals	\$2,871
Total	\$156,323



2009 SUPPORTER INFORMATION

Grants and Contracts	\$88,272
Foundations	\$1,900
Individuals	\$1,769
Total	\$91,941

Our thanks to the 2010 Supporters of IEDRO

Grants:

National Oceanic and Atmospheric Administration	\$96,211
World Meteorological Organization	\$55,000

Foundations:

Chatham Foundation	\$1,000
Combined Federal Campaign	\$716
Greater Good Organization	\$525

Individuals:

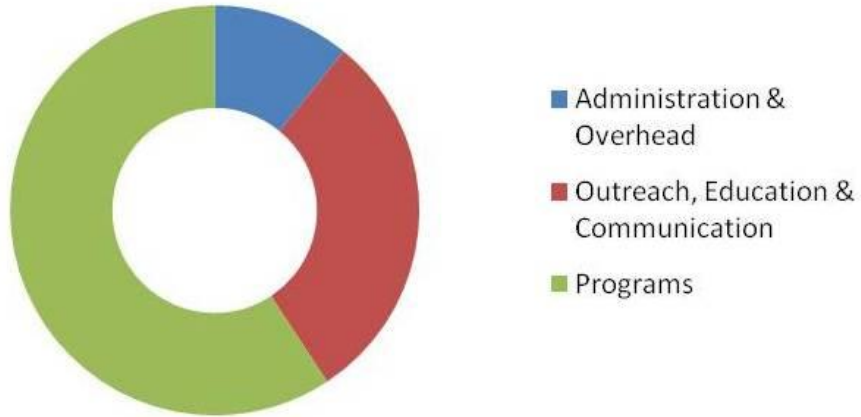
\$1,000 to \$2,999	
Richard Crouthamel	\$2,131

Under \$500	
Patricia Martin	\$400
Marina Drazba	\$300
Janet Sansone	\$25
Goodsearch	\$15

\$156,323

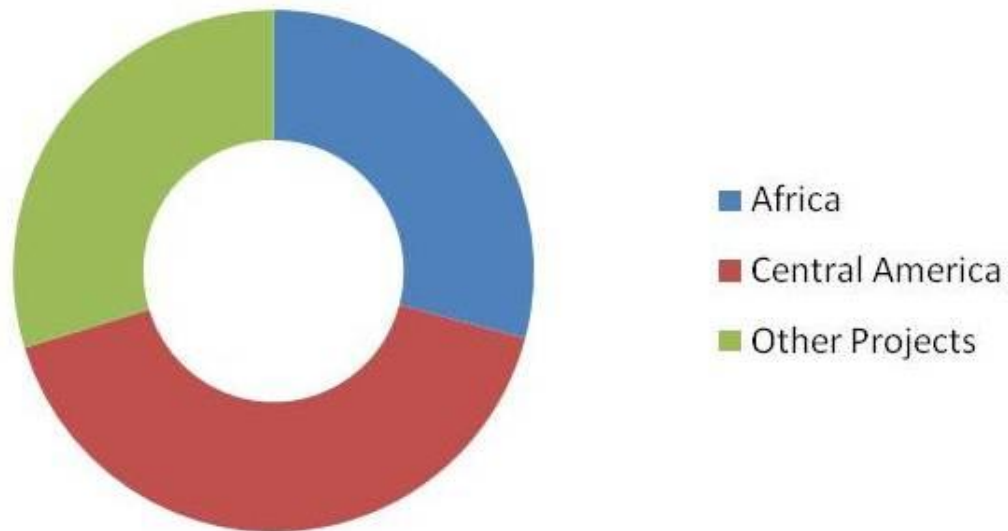
2010 IEDRO Expenses

Administration & Overhead	\$13,548
Outreach, Education & Communication	\$37,221
Programs	\$73,857
	\$124,626



2010 IEDRO Project Expenses

Africa	\$21,532
Central America	\$30,338
Other Projects	\$21,986
	\$73,857



2011 IEDRO Balance

WMO	\$55,155
NOAA	
Other	

THE PEOPLE WE AFFECT



The number of beneficiaries to the rescue and digitization of these old data are the number of citizens in the countries where we have projects and eventually all of humanity. IEDRO's involvement began in the years cited below and has continued ever since. To date, we have rescued over 1,500,000 pages of weather records containing over 100,000,000 observational values from the meteorological societies of the following countries:

AREA/COUNTRY	SERVICE DESCRIPTION	BENEFICIARIES
AFRICA		
Kenya	Rescued & digitized surface and upper-air observations	38,610,097
Malawi	Rescued & digitized surface and upper-air observations	15,692,000
Mozambique	Rescued & digitized surface and upper-air observations	22,416,881
Niger	Rescued & digitized surface and upper-air observations	15,203,822
Senegal	Rescued & digitized surface and upper-air observations	12,861,000
Tanzania	Rescued & digitized surface and upper-air observations	43,187,823
Zambia	Rescued & digitized surface and upper-air observations	13,257,000

AREA/COUNTRY	SERVICE DESCRIPTION	BENEFICIARIES
WESTERN HEMISPHERE		
Chile	Rescued & digitized surface observations	17,172,800
Dominican Republic	Rescued & digitized surface and upper-air observations	9,884,371
El Salvador	Rescued & digitized surface and upper-air observations	6,194,000
Paraguay	Rescued & digitized surface and upper-air observations	6,460,000
Uruguay (2 sites)	Rescued & digitized surface and upper-air observations	3,356,584
BEGINNING IN 2011		
Bolivia	Surface and upper-air observations	10,426,154
Namibia	Surface and upper-air observations	2,212,000
Uganda	Surface and upper-air observations	31,800,000
	TOTAL POPULATION AFFECTED	248,734,532