2012

APOPO Annual Report 2012

Anti-Persoonsmijnen Ontmijnende Product Ontwikkeling

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In December 2012, APOPO exploded the last three landmines in the Gaza Province of Mozambique, after clearing more than 6 million square meters and uncovering 2,406 landmines, 13,025 small arms and ammunition and 922 UXO, a year before the deadline.”
APOPO is a social enterprise that researches, develops and implements detection rats technology for humanitarian purposes such as Mine Action and Tuberculosis detection. APOPO is a Belgian NGO, with headquarters in Tanzania and operations in Mozambique, Thailand, Angola and Cambodia.
841 Mines, UXOs and small arms and ammunitions found and destroyed by APOPO teams in 2012

396 Villages visited and surveyed by APOPO teams in 2012

6,075,926 Square meters of land released or cancelled for the local populations in 2012

Resources mobilized for Mine Action

2010 2011 2012
**TB DETECTION**

**BENEFICIARIES**

+ **560,000**

**ESTIMATED NUMBER OF DIRECT BENEFICIARIES**

**420**

**COMMUNITIES IMPACTED**

**2012 TB DETECTION**

**31,575**

**TOTAL NUMBER OF SAMPLES SCREENED BY RATS IN 2012**

**555**

**TB PATIENTS IDENTIFIED BY RATS IN 2012**

**25**

**TOTAL NUMBER OF COLLABORATING HOSPITALS IN 2012**

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**CAPACITY BUILDING**

99% OF APOPO’S STAFF IS EMPLOYED IN THE DEVELOPING WORLD

95% OF APOPO’S STAFF IS FROM THE LOCAL COMMUNITIES

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**Resources mobilized for Tuberculosis Detection**

- 252 rats
- 297 staff
- 51 volunteers
- 41 local partnerships
- 24 institutional donors
- 3038 individual supporters
- 2756 man-days of training

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**ESTIMATED NUMBER OF DIRECT BENEFICIARIES**

- 99
- 95
- 420

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**OF APOPO’S STAFF IS FROM THE LOCAL COMMUNITIES**

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**Tuberculosis Detection**

- 2010
- 2011
- 2012

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**Capacity Building**

- 99% OF APOPO’S STAFF IS EMPLOYED IN THE DEVELOPING WORLD
- 95% OF APOPO’S STAFF IS FROM THE LOCAL COMMUNITIES
In 2012, APOPO’s Mine Action Mozambique program delivered beyond set requirements and exceeded the expectations of the country’s national demining authority. APOPO finished its work in the Gaza province and declared it free of known minefields a year ahead of the initial schedule of 2013. This excellent achievement was realized due to the successful expansion of the program’s capacity. During the handover ceremony, HRH Princess Astrid of Belgium commended the work in Gaza as “a shining example of how national priorities can be achieved with the right partnerships, sustained effort and, most importantly, sheer human intent”.

The focus in 2012 was to release all known suspected or confirmed hazardous areas in the province of Gaza and return the whole province as mine-free to its population. To date APOPO has cleared/released and returned 6,423,361 m² of confirmed hazardous areas and suspected hazardous areas to productive use in Gaza and Manica provinces through the destruction of 2,406 mines, 992 items of unexploded ordnance and 13,025 small arms ammunitions. The release of this land has fostered a safe environment for the people living in Gaza by enabling safe access to water sources, agriculture, cattle grazing, and has further granted the possibility of general development of the previously mine-suspected areas.

Since the completion of its work in the Gaza Province, APOPO has been tasked to work in the Manica, Sofala, Maputo, and Tete Provinces. In 2013 APOPO aims to clear/release over 2,500,000 m² through survey and clearance by applying an efficient land release methodology.

Since the program has successfully managed to expand its capacity, APOPO Mozambique expects to further progress by increasing the efficiency of survey, clearance, and land release methodology.

In 2013 APOPO will continue to expand and improve efficiency, and operations will be further streamlined to maximize operational output to a level significantly beyond that of 2012.

APOPO has built its capacity over the years with experienced personnel and equipment, and now has an extremely balanced, fully integrated mine action program in Mozambique. In Angola, APOPO has commenced a partnership with Norwegian Peoples Aid (NPA) whereby APOPO is providing MDR, handlers and a ground preparation machine to support the NPA clearance operations in Malanje. In Thailand APOPO is implementing a Land Release Methodology to assist the Thailand Mine Action Centre (TMAC) to accurately record and map minefields along their border with Cambodia. This in essence is what is known as Non-Technical Survey (NTS).

APOPO is committed to this methodology and has gained valuable experience conducting NTS in Thailand and hopes that this can be a model for other mine affected countries, especially in Myanmar where there has yet to be a systematic NTS of the country.

During 2012, APOPO has continued to build momentum and is consolidating its place within the international mine action community. Within mine action circles, APOPO has typically been recognized as the organization with the mine detection rats (MDR), however, APOPO is much more than just our little “furry friends”.

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In accordance with the IND and the Government of Mozambique, and in order to help Mozambique comply with its Ottawa Treaty deadline of 2014, APOPO will continue to expand and improve efficiency. In partnership with DIGGER DTR Foundation, APOPO has added a D-3 demining machine to its capacity, which will further increase the productivity of APOPO. Additionally, APOPO aims to offer support to other organisations in order to assist them in reaching their targets in the remaining provinces.
“I am giving back to the people what was taken from them for ages. We all understand that being a woman is not an impediment, but an opportunity.” Assa Santos Macuacua, Team Leader

APOPO’s Mine Action Program in Mozambique has a brand new all ladies demining team recruited to contribute to equal opportunity and employment in the area. This highly motivated team entirely comprises of women hired from the local communities - and all without prior demining experience.

APOPO’s ladies team started operations in 2012, removing hand grenades and POMZ mines from the Chokwe minefield in Southern Mozambique.

“APOPO is one of the National Demining Institute’s primary partners conducting humanitarian demining operations in Mozambique. APOPO is continuing to provide a substantial contribution to demining efforts aimed at clearing the country of all known landmines by 2014.

In 2012, Apopo’s demining teams continued to expand their operations and were active in the provinces of Gaza and Manica. Thanks to the tireless efforts of APOPO’s deminers and their Mine Detection Rats, the last known mine field in Gaza Province was completed in December 2012. This enabled the Government of Mozambique to declare the entire Province of Gaza as ‘Mine-Free’ a full year ahead of the schedule established by the National Mine Action Plan.

With APOPO’s continuing support Mozambique is steadily progressing towards our goal of a mine-free Mozambique.”

“Felismina Fenias Chonguane
I had dreams of looking for a job like other people but I’m unsuitable for any type of work. I’m happy to know that APOPO is coming to relieve us of landmines which are like a living curse on us. When they are removed, we shall maybe someday in the future build a clinic.”

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“APOPO HAS GIVEN TREMENDOUS SUPPORT TO MOZAMBIQUE IN ATTAINING ITS OBLIGATIONS UNDER THE ANTI-PERSONNEL MINE BAN CONVENTION. THE ORGANIZATION HAS DEVELOPED VERY FAST INTO THE MOST EFFICIENT MINE ACTION OPERATOR IN OUR COUNTRY.

Mr. Alberto Augusto
Director National Demining Institute of Mozambique
During my commission for APOPO in Angola, November 2012, I trained and certified 15 highly competent and disciplined handlers. In addition to the trainers in Morogoro, Tanzania, and the handlers in Mozambique, this is definitely a highly valuable workforce in our global demining efforts.

I left my men in Angola under the supervision of my highly competent lieutenant, a quiet Tanzanian called Jared Mkumbo. I’m sure they will fare well and perform their jobs commendably, releasing land for their families and making their lives safer as they tirelessly search the fields tormented by a past war. They have been on my mind every day that has passed since I left Angola. Keep it up, guys, you’re doing us all proud!

My last words to them before I left them were, “Take care of yourselves, take care of one another and take care of the rats. Remember, you, the most experienced handlers, the rats are your friends; and your team mates are like your little brothers that you have to guide and care for. Take good care of them, help them, protect them. This job of yours is an important one. You’re saving lives every day.”
APOPO’s partner organization in Angola is Norwegian People’s Aid (NPA), one of the leading humanitarian mine clearance operators in Angola. NPA has worked with mines in the country since 1994 and has a comprehensive mine action capacity that consists of combined non-technical and technical survey teams, explosive ordnance disposal and clearance teams. NPA is the only mine action organization in the provinces of Malanje, Kwanza Norte, Uige and Zaire - an area of more than 200,000 square kilometers and with almost 2,400,000 inhabitants. The organization will now utilize APOPO’s Mine Detection Rats (MDRs) that are expected to speed up work and consequently the land release process.

APOPO’s specially trained Giant Pouched Rats for landmine detection complement NPA’s survey and clearance capacities. One MDR can clear up to 400 square meters per day, compared to a manual deminer who, with the help of metal detectors, can typically clear only 25 to 50 square meters in the same duration.

In Angola, APOPO currently has a capacity of 18 rats, organized into three teams of six rats each. Approximately half of this capacity will be clearing mines and releasing land in APOPO-dedicated areas while the other half will support NPA’s mechanical clearance capacity in areas where the organization has already prepared the ground for detection activities. Over the next three years NPA and APOPO’s joint efforts are expected to considerably reduce the impact from landmines in Angola, in a cost-effective way.

The APOPO/PRO teams consist of four NTS teams made up of a Team Leader and three team members for each team, these teams are supervised by an Operations Manager, all staff are Thai. The programme is headed by an international based in Bangkok liaising with the national authority and providing capacity building. The APOPO-PRO teams have surveyed a total of 39 Confirmed Hazardous Areas in Trat and Buriram Provinces in 2012. As a direct result of this survey, over 3.9 km² of land that was previously considered to have been mined has now been cancelled and can be released back to communities. 175 mines and UXOs were found and marked by APOPO-PRO teams for subsequent clearance and destruction in 2012. Further results of the APOPO-PRO survey work is that over 18.4 km² has been confirmed to contain mines and another 15.9 km² will need further Technical Survey (TS) to confirm the presence of mines or not.

The consequence of this NTS process is that considerable time, effort and money will now not be wasted clearing land unnecessarily. This then increases the efficiency and effectiveness for the TS/clearance teams and will assist Thailand meet its mine ban treaty obligations.
SQUARE METERS OF LAND SURVEYED IN 2012
3,974,300

SQUARE METERS OF LAND IDENTIFIED AS FREE OF MINES AND OTHER THREATS
38,300,000

NUMBER OF CONFIRMED HAZARDOUS AREAS IDENTIFIED IN 2012
56

The consequence of this NTS process is that considerable time, effort, and money will now not be wasted clearing land unnecessarily.

A non-technical survey combines desk assessment with field observations and interviewing informants. The survey gathers and analyses past records, while visually identifying patterns and anomalies. Field visits can also help to define safe areas and identify potential threats.

Thailand
Landmines and explosive remnants of war (ERW) pose a clear and present danger to civilians and humanitarian aid workers in the conflict areas of Myanmar. The mine contamination within the country originates from decades of armed conflict and post-independence struggles for autonomy by ethnic minorities. Little is known with regard to the extent of the landmine contamination as Myanmar has been until now been isolated from almost all Humanitarian Mine Action (HMA) activities. Despite this, mines are believed to be concentrated on Myanmar’s borders with Bangladesh and with particular heavy concentrations along the border with Thailand.

After nearly 50 years of military rule, Myanmar is embarking upon a landmark transition to civilian administration. The country has seen some promising political reforms and has held additional peace talks with ethnic minorities to further strengthen the current ceasefire. But the world’s longest civil war has created serious HMA needs that will need to be addressed.

APOPO is working closely with the Myanmar Peace Centre as well as other international mine action NGOs to establish the National Mine Action Standards. Discussions are ongoing with potential donors and concerned stakeholders to raise awareness as to the landmine problem throughout the country.

During 2012, APOPO partnered with the Cambodian Mine Action Centre (CMAC) a national demining operator to assist within the framework of the National Base-Line Survey (BLS). The objective of the Cambodian project was to conduct Non-Technical Survey (NTS) in 4 districts, in the provinces of Mondul Kiri and Stueng Treng, to identify and map Confirmed Hazardous Areas (CHA).

The project in Cambodia was from 1 September to 31 December 2012. Survey teams were initially deployed to Mondul Kiri Province. The two NTS teams consisted of 10 field staff, with each team made up of 1 team leader, 1 assistant team leader, and 3 team members. The teams conducted a systematic village by village survey of the two provinces to gather information from the local communities to determine as precisely as possible the locations of mine affected areas. This data will then be used to prioritise the clearance efforts as well as to provide a more accurate description of the total mine affected area throughout the country.

By the end of the project the teams had surveyed 136 villages and classified 139 mine fields over an area of 135,698,723 m² within 2 Provinces of Mondul Kiri and Stueng Treng. A continuation of this partnership is anticipated in 2013, once funding has been confirmed.
MINE DETECTION RATS TRAINING CENTER

- MDRS ACCREDITED IN 2012: 38
- NUMBER OF TRAINERS: 30
- TIME TAKEN TO FULLY TRAIN A MINE DETECTION RAT: 9 MONTHS

TANZANIA
Unlike many international NGOs, APOPO decided to have its center of gravity in the developing world. Therefore, APOPO established its research, training and administrative headquarters in Morogoro, Tanzania, closer to its operations. This enables effective capacity building and economic development in the local communities, and reinforces a participatory approach with local stakeholders.

APOPO hires staff locally to maximize community participation in all operational programs. The training center in Morogoro coaches both Tanzanian trainers, as well as trainers visiting from other APOPO programs. Tanzanian senior trainers assist in the supervision of programs outside of Tanzania and the further training of rat handlers in those areas. APOPO’s rats too, are sourced from the immediate surroundings of the organization’s Morogoro premises.

"I FEEL GREAT KNOWING THAT I AM HELPING PEOPLE TO LEAD SAFE AND HEALTHY LIVES NOT JUST IN MY OWN COUNTRY BUT ALSO IN SEVERAL OTHERS. WORKING HERE, I BELIEVE THAT THERE IS NOTHING UNDER THE SUN THAT IS IMPOSSIBLE."

Mark Shukuru
Training Officer, Tanzania
RESEARCH AND DEVELOPMENT

Scientific research is at the heart of APOPO’s transformative scent detection technology. APOPO believes that its technology reliant upon detection rats must be firmly rooted in empirical support and operate under rigorous standards on par with top research organizations. And so, APOPO has built a network of partnerships, collaborators, and advisors to ensure that the detection technology operates at a high level of excellence by any objective measure. In 2012, APOPO published five research papers with 26 authors and 11 collaborating institutions.

APOPO’s research team includes three behavior analysts to investigate sampling and training issues, an analytical chemist to conduct sample analysis, and a microbiologist to support the olfactory component of the TB detection process. APOPO’s research is split roughly into two domains: exploratory and operational. APOPO’s operational research aims to optimize the mine detection and TB detection systems. In 2012, four operational studies were completed with immediately applicable results. One study investigated the effects of withholding rewards (i.e. extinction) on landmine search rats while another study investigated the effects of training TB-detection rats with samples containing low levels of the TB bacilli. APOPO’s exploratory research investigates new areas of application in health, illicit substances, and search and rescue. Four projects were in the exploratory stages in 2012.

CAMERATS

APOPO’s Search and Rescue project, which in the future can potentially help to track survivors after natural disasters such as earthquakes, began in 2011 and has taken off in 2012. The rats are trained to find people in ever-more complex environments and wear vests holding a beeper and a camera. When the rat finds a person, the sight is caught on camera and the trainer initiates the beeping. The rat then should find its way back to the start location to get a reward. The human targets are changed frequently to ensure that the rat will find anyone, anywhere.

Five advanced rats search up to eight rooms with obstacles. In a small assurance test, the rats reliably found the human target in fewer than three minutes and reliably ignored a non-human lookalike. Also in 2012, five newborn rats were socialized and began the early stages of training.

CameRATs

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<th>NUMBER OF AUTHORS</th>
<th>NUMBER OF COLLABORATING INSTITUTIONS</th>
<th>NUMBER OF RESEARCH AND DEVELOPMENT EXPERIMENTS</th>
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Dr. Amanda Mahoney
Head of Training and Behavioral Research
In Tanzania, tuberculosis (TB) is the third major cause of disease and death after malaria and HIV/AIDS, and the country is one of the 22 high-TB burden countries in the world. Apart from other factors such as poverty and the HIV epidemic, the lack of a fast, efficient and simple TB diagnostic method is the main reason for the fast spread of tuberculosis. APOPO started with TB Detection Rats in a second-line TB screening program in 2007 after the successful completion of a proof of principle study. Second-line screening means that sputum samples of TB suspects are screened firstly at the Direct Observation of Treatment, Short-Course (DOTS) centers and secondly by APOPO’s rats. Sputum samples that were negative at the DOTS centers but found positive by APOPO’s rats are confirmed at APOPO’s diagnostic laboratory. The confirmed results are sent back to the respective DOTS centers for patient tracking, TB treatment and follow up.

In 2012, APOPO’s TB Detection Rats have demonstrated their significant impact in second-line screening of TB suspects. APOPO confirmed a total of 555 TB patients identified by rats in 2012. In total, the rats screened 31,575 sputum samples collected from 17,575 patients. The number of collaborating DOTS centers expanded from 9 to 17, and currently includes centers from Dar es Salaam and Morogoro. The success of the TB Detection Rats in Tanzania convinced the National Tuberculosis program of Mozambique to build a TB Detection Rat laboratory in Maputo. In 2012, all preparations have been made to get APOPO’s TB Detection Rats operational in January 2013 in Maputo to actively contribute to curb the spread of TB.

In 2012, APOPO successfully explored new ways to reduce TB morbidity and mortality. First, APOPO has agreed on a partnership with MKUTA, a local NGO, which is composed of former TB patients. Mkuta volunteers help convincing the suspected TB patients to register accurate contact data and help to track and persuade the TB confirmed patients to start treatment. A pilot implementation of this exercise produced promising results with more patients starting TB treatment. A long term partnership agreement with MKUTA is envisioned. Second, a dramatic impact on the burden of TB could be achieved by using the speed of the rats to detect TB in a first-line screening program. Experiments to use the rats for first-line screening have shown promising results. Furthermore, APOPO anticipates collaboration with Pharmaccess to start first-line screening in inmates in Tanzania in 2013.

**TUBERCULOSIS DETECTION**

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**PRESIDENTIAL HONOR**

**DR. GEORGIES MGODE OF APOPO’S TUBERCULOSIS RESEARCH CENTER IN MOROGORO WAS AWARDED THE INVENTION AND SCIENTIFIC RESEARCH MEDAL BY THE PRESIDENT OF THE UNITED REPUBLIC OF TANZANIA, JAKAYA KIKWETE.**

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**NUMBER OF FULLY TRAINED TB DETECTION RATS IN 2012**

- **22**

**TIME TAKEN BY RATS TO PROCESS 40 SAMPLES**

- **7 MINUTES**
DAR ES SALAAM

INCIDENCE OF TB IN DAR ES SALAAM PER 100,000 PEOPLE

ADDITIONAL TB PATIENTS FOUND BY RATS SO FAR

SAMPLES SCREENED SINCE 2007

17 PARTNER HOSPITALS

31,575 SAMPLES SCREENED IN 2012

418 INCIDENCE OF TB IN DAR ES SALAAM PER 100,000 PEOPLE

2,955 ADDITIONAL TB PATIENTS FOUND BY RATS SO FAR

153,654 SAMPLES SCREENED SINCE 2007

Dr. Negussie Beyene
Program Manager, TB Tanzania
APOPO entered into a partnership with MKUTA (Ma-pambano ya Kifua kikuuna Ukimiwi Tanzania) in order to increase patient notification to 90%.

APOPO collects human sputum samples from 17 health centers, the majority of which are located in Dar Es Salaam. These health centers test the samples for Tuberculosis before passing them on to APOPO for second line screening by trained rats. The rate of TB transmission is cause for concern in highly populated areas such as Dar Es Salaam, where 418 in 100,000 people have the disease.

MKUTA is a national club of former TB patients who support APOPO’s patient follow up. Once APOPO’s lab has confirmed the positive samples, these patients must be notified so that treatment at the local hospitals is administered. Patients often leave out important contact information on registration forms at the testing sites which make it difficult for the hospital to notify them. MKUTA’s volunteers support the staff in these centers in checking each form for completion once the patient has registered. Once APOPO submits the list of positive samples to the hospital, MKUTA volunteers call or visit the patient to ensure they are aware of their status. They also make sure the patients stick to the treatment regimen and complete the schedule.

1. **Patient Tested at TB Clinic**
   Suspected TB patients leave a sputum sample in the TB clinic, which will be checked by microscopy on the presence of TB bacilli. In Tanzania, this method identifies less than half of the tested positive samples as really positive.

2. **Sputum Sample Collection**
   All collaborating TB clinics will store all their checked sputum samples to be collected by APOPO on a regular base. APOPO gets a set of positive and negative samples and correlating patient codes.

3. **Samples Inactivated**
   APOPO inactivates the incoming samples using heat treatment in an autoclave. This ensures that the sputum is not contagious for the trainers and the rats.

4. **Screening by Rats**
   Rats screen the samples which are placed in a linear setup under sniffing holes. A rat screens hundred samples in less than 20 minutes, a task which would take a lab technician more than two days.

5. **Rat Finds Missed Samples**
   When one or more rats make an indication on samples which were labeled as negative, the suspect sample status is confirmed again in the lab. The rats have identified almost 3,000 incorrectly diagnosed TB patients over the last few years.

6. **Patients Are Tracked and Treated**
   APOPO reports the additional case findings back to the hospitals and effort is made to track back the patient and start treatment. Without treatment, a TB patient can potentially transmit the disease to fifteen other people.
I was so happy that I could finally confirm the disease in my body and find a solution. I can now take care of my home. Returned health gave me independence. I can work and provide service to my community. I want others like me to know about APOPO and get help. Now I say that rats are good.”

Early into the marriage, Janet began experiencing a distinct change in her body, starting with dramatic weight loss. Her very thin body was constantly wracked with violent coughs, and she was plagued with night sweats and burning fevers which kept her from sleeping. Janet’s husband was worried so he sent her to a local doctor, who gave her medication for typhoid. She was no longer able to work and care for her home. Her husband became the household’s sole provider and caretaker. As her symptoms worsened, Janet grew weaker and she could no longer perform even the most perfunctory daily tasks.

Janet met with two more doctors for a second and third opinion. The hospitals administered chest x-rays and checked her sputum under a microscope, but they could not find a trace of TB. Her results kept coming back negative.

Then a friend of a neighbor brought Janet a message, about an organization, APOPO, that trains Giant African Pouched Rats to detect TB in sputum samples. The rats provide second line screening for local hospitals, identifying positive samples lab technicians may have missed. Though this direct method was not a part of APOPO’s normal process – saving lives is our mission. The lab technicians gathered a sputum sample from Janet to present to the HeroRATs. Each animal indicated a positive TB sample. The team called Janet back the next day for her results summary, and her reaction was atypical of most people just diagnosed with TB – she was overjoyed since she could now get proper treatment.

Less than two years later Janet is healthy again and recently opened her sundries shop alongside her tailoring business.

MAPUTO, MOZAMBIQUE

In 2012 APOPO started its Tuberculosis detection operation in Maputo, Mozambique. The program aims to contribute to the Mozambican National TB Control Program by effectively increasing the number of identified TB patients in a short term. Also, project implementation creates a local capacity of TB detection rats and trainers to support a long term impact on reducing the TB problem in Mozambique.

The year witnessed APOPO establish concrete partnerships with the country’s Ministry of Health (MiSAU), the National Institute of Health (NIS), the National Tuberculosis Control Program, the Maputo City Health Directorate; Eduardo Mondlane University (UEM) as well as the Ministry of Foreign Affairs. APOPO also received ethical clearance for project from the NIS Bioethical Committee. APOPO has built and equipped a TB detection rat facility at the Veterinary School of the Eduardo Mondlane University. This facility also has kennels to host the rats and a range of laboratory equipment. During 2012, both rat trainers and lab technicians traveled to Morogoro for training to aid in the implementation of APOPO’s TB program in Maputo.

After consultation with the Maputo City Health Directorate, eight health units from Maputo City have been selected to participate in the project. Together, APOPO will collect an average of 560 samples of potential TB patients per week from these clinics. APOPO distributed relevant equipment to these health units to provide them with the means to store samples until collection. APOPO’s TB program in Maputo is funded by Flanders International Cooperation Agency, the Carraresi Foundation, and the Swiss Development Cooperation.

MOROGORO, TANZANIA

HIV CO-INFECTION RATE IN TB PATIENTS IN MOZAMBIQUE

INcidence OF TB in MOZAMBIQUE PER 100,000 PEOPLE

PARTNER HOSPITALS
WE TRAIN RATS TO SAVE LIVES.

APOPO is ranked 11 overall on the Global Journal’s list of the “Top 100 NGOs”. The organization also is featured in the top three lists for the best NGOs in terms of innovation and in the peace-building sector.

While solving pressing humanitarian challenges we assist our communities by developing skills, creating jobs, improving socio-economic and environmental conditions, releasing land for development, and combating public health issues.

OUR TEAM

Our team comprises of experts from across the world committed to fighting humanitarian challenges in the most innovative and effective ways.

APOPO currently employs over 250 local staff for its in-country operations, and has over 250 rats in various stages of breeding, detection training, research, or operations.

APOPO
APOPO strives to deliver quality services to the people who need it most.

Facing pressing global issues, it is the obligation of every NGO to transform ever decreasing available resources into increasingly powerful social impact. Not only does APOPO act on and aligns itself to the needs of its beneficiaries, the fast growing pace of the organization makes it imperative and exciting for us to leverage the impact of our interventions. APOPO has taken this task seriously and started a process of continuously questioning and improving itself. APOPO subscribed to the EFQM model – formerly known as the European Foundation for Quality Management – which helps over 30,000 private and public organizations in Europe to achieve higher levels of performance by gathering and disseminating tools for good management practice. In this framework, APOPO focuses on improving internal processes of **Human Resource Management**, increasing the team spirit and output, **Monitoring and Evaluation**, measuring and quantifying our timely impact and optimizing **financial management** – in essence, doing more for less. As an organization with innovation and scientific application at its core, learning faster is as important to us as growing faster is.

The real incentive for us is to find answers to questions of how we can empower more people; how we can get rid of the landmine terror in the fastest possible manner; how we can reach all those people suffering from TB and help them return to their normal lives and how we can stop its dangerous spread. These questions compel APOPO to constantly re-invent and implement innovative approaches for a better world.
HERORAT

Overview 2012

WE THANK OUR SUPPORTERS FROM AROUND THE WORLD FOR PARTICIPATING IN APOPO’S ADOPT-A-RAT PROGRAM AND FOR SUPPORTING OUR LIFE-SAVING WORK.

WHY RATS?

1. Exceptional sense of smell
Rats are known to be amongst the most sensitive animals if it comes to smell. They will sense where a mine is buried or if a sample contains disease. Moreover, their sensitivity for a specific scent increases with the amount of training.

2. Intelligent and trainable
The African Giant Pouched Rat is an intelligent animal, relatively calm and trainable. Once learned, they like to perform repetitive tasks. Moreover, their long lifespan of up to eight years means they can be productive for many years.

3. Too light to set off mines
The Cricetomys are mostly just over a kilogram, which is not enough to set of a mine. Therefore, they are trained to pause or to scratch on the surface where they have found a landmine.

4. Locally sourced and widely available
The “Cricetomys Gambianus” or “African Giant Pouched Rat” is native to most of Sub-Saharan Africa, adapted to the local environment and widely available.

HeroRATs are trained by APOPO to save lives and limbs, by using their exceptional sense of smell to sniff out unexploded landmines and Tuberculosis (TB). They are the true heroes behind APOPO’s mission, working together with their human colleagues to create a safer world and inspire social change.

The HeroRAT adopters may choose to make contributions of € 60 per year, or € 5 per month with a minimum commitment of one year. Adopting a HeroRAT comes with a number of rewards including: an official HeroRAT adoption certificate, an introductory letter from the chosen HeroRAT, and quarterly updates from the adopted rat.

FOLLOWERS (+50%)

7,754

1,732

€ 241,246

FOLLOWERS (+50%)

TOTAL INCOME FROM THE HERORAT PUBLIC CAMPAIGN

WE THANK OUR SUPPORTERS FROM AROUND THE WORLD FOR PARTICIPATING IN APOPO’S ADOPT-A-RAT PROGRAM AND FOR SUPPORTING OUR LIFE-SAVING WORK.

FOLLOWERS (+50%)

TOTAL INCOME FROM THE HERORAT PUBLIC CAMPAIGN

WE THANK OUR SUPPORTERS FROM AROUND THE WORLD FOR PARTICIPATING IN APOPO’S ADOPT-A-RAT PROGRAM AND FOR SUPPORTING OUR LIFE-SAVING WORK.
5. Easily Transferable Between Trainers
Rats do not bond closely to their trainers, which poses a logistic advantage when transferring the animals between trainers or when sending them abroad for operations.

6. Low Maintenance Cost
Rats are cheap to source, feed, breed and maintain. Their small size makes them also cheap and easy to transport, locally and internationally.

7. Resistant Species
Endemic to Sub-Saharan Africa, the African Pouched rats are well adapted to the environment. APOPO's rats in captivity are mostly in excellent health and live long lives.

2,105 Herorat adopters in 2012

<5% share of budget dedicated to fundraising activities
POWERFUL WORK. COMPELLING STORIES.

The APOPO story is about innovation, impact and local solutions. We are thrilled to have had the pleasure of hosting and sharing information with media teams from around the world.

The multi-continent and multi-lingual stories on APOPO and the HeroRATs definitely go a long way in building a stronger support system for us and we hope that these potent stories will inspire the world to believe that simple ideas can indeed save lives.

Our outreach efforts are reinforced and multiplied by our online supporters who publicize our life-saving work to their social and professional networks.

APOPO’s HeroRATs can tweet as well as they squeak! Our supporters see and share the latest heroic happenings on both facebook and twitter:

- www.facebook.com/heroRAT
- twitter.com/HeroRATs

<table>
<thead>
<tr>
<th>MEDIA</th>
<th>FACEBOOK IMPRESSIONS</th>
<th>FACEBOOK POST LIKES</th>
<th>TWITTER REACH</th>
<th>FACEBOOK ENGAGEMENTS (SHARES+COMMENTS)</th>
<th>RETWEETS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,045,867</td>
<td>12,452</td>
<td>1,195,177</td>
<td>3,733</td>
<td>605</td>
</tr>
</tbody>
</table>

1,045,867
FACEBOOK IMPRESSIONS

12,452
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TWITTER REACH

3,733
FACEBOOK ENGAGEMENTS (SHARES+COMMENTS)

605
RETWEETS
Expanding APOPO’s operations and consequently our social impact would not have been possible without the trust and sustained support from all our donors and partners: philanthropists, research institutes, NGO’s, governments and multilateral organizations, and highly committed individuals alike.

APOPO’s participative learning culture continues to build bridges between unlikely partners, like humans and Hero-RATs saving lives together. It embraces diversity and stimulates innovative collaboration, while fostering quality in all the aspects of our work.

The beauty of this innovative collaboration “beyond the box” is that it naturally facilitates the social transformation we all pursue. While the story of the Hero-RATs continues to inspire social change, APOPO continues to enable the communities we serve in Africa and South-East Asia, by reclaiming mine-suspected land and ensuring human safety, by increasing TB case finding in urban slums and by providing sustainable jobs and building local capacity. Thanks so much to all, for realizing this together!
## Profit & Loss Statement (Euros)

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Income</td>
<td>4,117,914</td>
<td>2,560,291</td>
</tr>
<tr>
<td>Total Operational Expenses</td>
<td>1,662,577</td>
<td>1,227,929</td>
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<tr>
<td>Total Personnel Expenses</td>
<td>1,881,329</td>
<td>1,206,639</td>
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<tr>
<td>Depreciation</td>
<td>577,378</td>
<td>332,642</td>
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<tr>
<td>Other costs</td>
<td>7,516</td>
<td>3,847</td>
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<tr>
<td><strong>Operating Result</strong></td>
<td><strong>-10,885</strong></td>
<td><strong>-210,765</strong></td>
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<tr>
<td><strong>Financial Result</strong></td>
<td><strong>-7,782</strong></td>
<td><strong>19,614</strong></td>
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<tr>
<td><strong>Extraordinary Result</strong></td>
<td><strong>150,734</strong></td>
<td><strong>118,377</strong></td>
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<tr>
<td><strong>Net Income</strong></td>
<td>132,067</td>
<td>-72,775</td>
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</table>

## Balance Sheet (Euros)

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASSETS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Assets</td>
<td>1,869,763</td>
<td>1,120,919</td>
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<tr>
<td>Land and buildings under partnerships</td>
<td>277,746</td>
<td>188,215</td>
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<tr>
<td>Furniture, vehicles and equipment APOPO</td>
<td>1,252,952</td>
<td>776,343</td>
</tr>
<tr>
<td>Furniture, vehicles and equipment under partnerships</td>
<td>339,065</td>
<td>156,361</td>
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<tr>
<td>Current assets</td>
<td>1,452,870</td>
<td>1,706,012</td>
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<tr>
<td>Current receivables</td>
<td>542,874</td>
<td>424,753</td>
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<tr>
<td>Other assets</td>
<td></td>
<td>4,388</td>
</tr>
<tr>
<td>Cash and equivalents</td>
<td>909,996</td>
<td>1,276,871</td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td>3,322,633</td>
<td>2,826,931</td>
</tr>
<tr>
<td><strong>LIABILITIES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net capital</td>
<td>1,082,782</td>
<td>1,019,704</td>
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<tr>
<td>Funds of the organization</td>
<td>328,046</td>
<td>328,046</td>
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<tr>
<td>Other reserves</td>
<td>203,584</td>
<td>272,574</td>
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<tr>
<td>Retained Earnings</td>
<td>551,152</td>
<td>419,084</td>
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<tr>
<td>Long term liabilities</td>
<td>2,222,123</td>
<td>1,829,501</td>
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<tr>
<td>Deferred Income (Grants)</td>
<td>2,222,123</td>
<td>1,829,501</td>
</tr>
<tr>
<td>Current liabilities</td>
<td>17,728</td>
<td>-22,274</td>
</tr>
<tr>
<td>Current payables</td>
<td>17,728</td>
<td>-22,274</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES</strong></td>
<td><strong>3,322,633</strong></td>
<td><strong>2,826,931</strong></td>
</tr>
</tbody>
</table>
EXCISES AND INVESTMENTS 2012 PER ACTIVITY IN EURO *

1. **PEACE & SECURITY**
   - Reclaiming the land around post-war communities to ensure human safety.

2. **PUBLIC HEALTH**
   - Increasing TB case findings by providing an efficient screening tool that benefits the poor in urban populations.

3. **ECONOMIC DEVELOPMENT**
   - Providing the preconditions, through mine clearance, for any economic development.

4. **SOCIAL TRANSFORMATION**
   - Developing Detection Rat Technology to provide innovative solutions for global problems.

5. **LOCAL EMPOWERMENT**
   - Creating jobs, developing skills and building local capacity, which enables communities to tackle their own challenges.

**DONATIONS & SUBSIDIES 2012 IN EURO * **

- Government grants, 37% ........................................ 1,787,243
- UNDP, 25% .......................................................... 1,228,068
- Foundations, 12% ................................................ 587,292
- Research grants, 5% ............................................. 238,986
- HeroRAT public campaign, 5% ......................... 241,246
- Other unrestricted income, 3% ...................... 144,050
- Corporate support, 1% ...................................... 24,866
- In kind donations, 12% ................................. 606,670

**TOTAL**

4,858,421

**EXPENSES AND INVESTMENTS 2012 PER ACTIVITY IN EURO * **

- Mine Action Mozambique, 51% .......................... 2,483,550
- Mine Action South East Asia, 10% ................. 492,144
- Mine Action Angola, 8% .................................. 375,475
- Training Mine Detection Rats, 3% ................... 149,033
- TB program Tanzania, 5% .............................. 267,686
- TB program Mozambique, 5% ......................... 241,321
- Research and Development, 3% ..................... 131,912
- CameRATs, 1% .............................................. 56,162
- Management of communications, fundraising, HR and finances, headquarters Tanzania, 8% .... 379,300
- Support and administration Belgian office, 6% 312,695

**TOTAL**

4,888,678

* CASH BASED
APOPO Board
- Her Royal Highness Princess Astrid of Belgium, Honorary President
- Diane Verstraeten, Chairperson and Honorary Secretary-General of the Flanders International Department
- Josse Van Steenberge, Vice-Chairperson and Honorary Rector of University of Antwerp
- Professor Mic Billet, Pre-Chairperson and Co-Founder of the Department of Product Development at University of Antwerp
- Christophe Cox, CEO
- Bart Weetjens, Head of Corporate affairs
- Rudy Van Eysendeyk, Former General Manager of the Royal Zoological Society of Antwerp
- Piet Van Hove, Head of International Relations, University of Antwerp
- Xavier Deleval, Director of MobileXpense and Vice-President of ETM-KDW
- Frank Braeken, Executive Vice President of North Africa, Middle East and Central Africa Division, Unilever
- Gerrit Ruitinga, Chairman of the Academy for Information and Management, Amsterdam

SUPPORT OUR WORK
Bank Details
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BNP Paribas Fortis Bank
Rucaplein 572
2610 Wilrijk, Belgium
Swift code: GEBABEBB
IBAN: BE24 0013 8706 5038

ADOPT-a-RAT
For 5 € per month you can contribute to APOPO’s life saving mission and receive updates of your own furry friend.

For a full list of APOPO’s Partner Foundations and details on how to make a tax-exempt donation from France, Germany, Italy, Netherlands, Switzerland, United Kingdom and United States, please visit our website. www.apopo.org