

# KOPERNIK ANNUAL REPORT



# 2012

Kopernik has reached  
**90,000** people  
with life-changing technology.





## TOTAL PROGRESS THROUGH 2012

62

PROJECTS  
FUNDED

12

COUNTRIES

42

LOCAL PARTNERS

17,500

TECHNOLOGY  
UNITS DISTRIBUTED

# TECHNOLOGIES IN 2012

12

TECHNOLOGIES DISTRIBUTED

6

NEW TECHNOLOGIES DISTRIBUTED

EXPANDED  
D.LIGHT RANGE  
d.light S250  
d.light S10  
d.light S1 **NEW**



EXPANDED  
NAZAVA RANGE  
Nazava Bening Small **NEW**  
Nazava Bening One  
Nazava Bening Two **NEW**  
Nazava Bening XL **NEW**



EXPANDED  
COOKSTOVE RANGE  
UB.03-1 Biomass Stove  
Greenway Smart Stove **NEW**



Q Drum  
Maternova Obstetric Kit  
Tulip Water Filter **NEW**





# TECHNOLOGIES IN 2012

WE MADE FINDING THE RIGHT TECHNOLOGIES EASIER.

63

TECHNOLOGIES  
IN OUR ONLINE TECHNOLOGY  
MARKETPLACE AT KOPERNIK.INFO

NEW

TECH CATALOGUE  
MAKING IT EASIER FOR LOCAL  
PARTNERS TO CHOOSE FROM OUR  
RANGE OF TECHNOLOGIES

NEW

TECH SHOWROOM  
OPEN TO THE PUBLIC  
AT THE KOPERNIK OFFICE  
IN UBUD, BALI, INDONESIA

52

K-LAB WEEKLY UPDATES  
PROFILING NEW AND EMERGING  
TECHNOLOGIES

# TECHNOLOGIES IN 2012

2,181  
SOLAR LIGHTS

ONE SOLAR LIGHT SAVES A FAMILY US\$58.40 A YEAR ON KEROSENE.<sup>1</sup>

OUR SOLAR PROJECTS SAVED FAMILIES A COMBINED TOTAL OF US\$127,370 ON KEROSENE IN 2012.

WE INVESTED US \$50,000 IN SOLAR LIGHTING PROJECTS IN 2012.

ONE SOLAR LIGHT REDUCES CO2 EMISSIONS BY 0.2 TONS PER YEAR.<sup>2</sup>

OUR SOLAR LIGHT PROJECTS REDUCED CO2 EMISSIONS BY 438 TONS IN 2012 & 4,412 TONS TO DATE.

1,234  
WATER FILTERS

ONE FUEL EFFICIENT COOKSTOVE SAVES 260 HOURS COLLECTING FIREWOOD PER YEAR.<sup>3</sup>

ONE FUEL EFFICIENT COOKSTOVE REDUCES CO2 EMISSIONS BY 1-2 METRIC TONS PER YEAR.<sup>4</sup>

OUR COOKSTOVE PROJECTS REDUCED CO2 EMISSIONS BY 1,170 METRIC TONS IN 2012 & 7,893 METRIC TONS TO DATE.

765  
COOKSTOVES

142 Q DRUMS  
100  
OBSTETRICS KITS

<sup>1</sup> GREEN INNOVATION INDONESIA

<sup>2</sup> KOPEME GROUP

<sup>3</sup> PARADIGM PROJECT

<sup>4</sup> PARADIGM PROJECT

# TECHNOLOGY DISTRIBUTION

WE REACHED THE LAST MILE IN MORE WAYS THAN EVER.



## TECH FAIRS

We held tech fairs in seven places in Indonesia, introducing new technologies and collecting feedback to work out which technologies are most in demand.



## TECH AGENTS

We expanded our Tech Agent program in Indonesia, supporting women to sell tech products in their local communities and earn commission on each sale.



## TARGETED PRICING

We worked with our local partners to set prices for our technologies, making them affordable for the people who need them the most. The money raised from selling the technologies is reinvested in further technology projects.



## TARGETED DISTRIBUTION

We worked with our local partners to find appropriate ways to distribute technologies, such as by a lottery system when demand exceeds supply. No two communities where we work are the same, and each requires a different approach.



## TECHNOLOGY DISTRIBUTION

### BOJONEGORO CLASS OF 2012

It's graduation day in Bojonegoro, but there's not a mortarboard hat in sight. Instead, the 18 graduates are wearing brightly-coloured headscarves and big smiles.

Many of the women never had the opportunity to finish high school, but today they are graduating from a women's entrepreneurship program run by Kopernik and Farabi, our local partner in Bojonegoro, East Java.

Our Class of 2012 has completed a six month program to become independent technology agents. They have gained new skills in sales, marketing and basic accounting, and the knowledge to maintain and repair technology products.

The program featured training workshops, monthly feedback on demonstration skills and product knowledge, and presentations from guest speakers such as Eryul Mufidah, founder of the Association of Indonesian Women Cooperatives (IWAPI).

Through the program the women receive products on consignment, sell them in their communities and earn commission without taking on risk or debt, increasing their income to support themselves and their families.

Our technology agents have already sold affordable water filters to more than 20 villages in Bojonegoro – greatly expanding access to safe, clean drinking water in the area. A total of 655 water filters have been sold in Bojonegoro to date.

The funds to make the water filters available to the women came from reinvesting the money from product sales in an earlier phase of Kopernik's

Bojonegoro project.

Moving forward, the women have formed a business coopera-

tive to sell life-changing technology – the first cooperative of its kind in the region. Demonstrating their independence as technology agents, they are now ordering water filters directly from the manufacturer rather than through Kopernik.

Kopernik is proud to support these women to gain the skills and confidence and to become independent technology agents. Based on the success of this program, we have expanded this distribution model to other places in Indonesia.

Special thanks to Exxon Mobil for supporting Kopernik's work in Bojonegoro.





# WHERE WE WORKED

WE IMPLEMENTED PROJECTS IN SIX COUNTRIES IN ASIA & AFRICA.



## INDIA

MADHYA PRADESH, MAHARASHTRA

POPULATION LIVING ON LESS THAN \$2 A DAY: 68.72%

INFANT MORTALITY RATE: 52.91 DEATHS/1,000 BIRTHS

POPULATION WITHOUT ACCESS TO ELECTRICITY: 36.7%



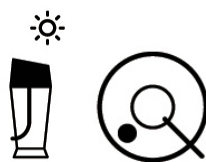
## INDONESIA

BALI, EAST JAVA, EAST NUSA TENGGARA, WEST NUSA TENGGARA

POPULATION LIVING ON LESS THAN \$2 A DAY: 46.12%

INFANT MORTALITY RATE: 28.84 DEATHS/1,000 BIRTHS

POPULATION WITHOUT ACCESS TO ELECTRICITY: 35.5%



## KENYA

WESTERN PROVINCE

POPULATION LIVING ON LESS THAN \$2 A DAY: 67.21%

INFANT MORTALITY RATE: 64.72 DEATHS/1,000 BIRTHS

POPULATION WITHOUT ACCESS TO ELECTRICITY: 83.9%



## NIGERIA

AKWA IBOM STATE

POPULATION LIVING ON LESS THAN \$2 A DAY: 84.49%

INFANT MORTALITY RATE: 96.14 DEATHS/1,000 BIRTHS

POPULATION WITHOUT ACCESS TO ELECTRICITY: 49.4%



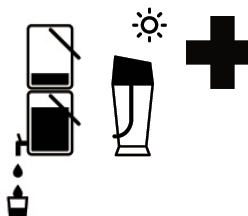
## THE PHILIPPINES

ORIENTAL MINDORO

POPULATION LIVING ON LESS THAN \$2 A DAY: 41.53%

INFANT MORTALITY RATE: 22.97 DEATHS/1,000 BIRTHS

POPULATION WITHOUT ACCESS TO ELECTRICITY: 10.3%



## TIMOR-LESTE

ATAURO, OECUSSE, DILI

POPULATION LIVING ON LESS THAN \$2 A DAY: 72.82%

INFANT MORTALITY RATE: 66.81 DEATHS/1,000 BIRTHS

POPULATION WITHOUT ACCESS TO ELECTRICITY: 78%



## OUR LOCAL PARTNERS

WE STARTED WORKING WITH NEW LOCAL PARTNERS.

COMMUNITY MEMBERS  
OF SIBERUT TENGAH  
INDONESIA

EAST BALI POVERTY  
PROJECT  
INDONESIA

GELACIO I. YASON FOUNDATION FAMILY FARM SCHOOL  
THE PHILIPPINES

GREEN TL  
TIMOR-LESTE

HARITIKA  
INDIA

MOVE FORWARD  
TIMOR-LESTE

RURAL COMMUNES  
INDIA

TOPA HALIEL SAVINGS  
AND LOANS GROUP  
INDONESIA

TROPICAL RESEARCH & CONSERVATION CENTRE  
NIGERIA

WE EXPANDED OUR WORK WITH TRUSTED PARTNERS.

ACTION FOR CHILD  
DEVELOPMENT TRUST  
KENYA  
2 PROJECTS TO DATE

BAIRO PITE CLINIC  
TIMOR-LESTE  
2 PROJECTS TO DATE

FARABI  
INDONESIA  
2 PROJECTS TO DATE

FRIENDS OF THE NATIONAL  
PARKS FOUNDATION  
INDONESIA  
2 PROJECTS TO DATE

FUNDASAUN ESPERANSA  
ENKLAVE OECUSSE  
TIMOR-LESTE  
8 PROJECTS TO DATE

PEKKA  
INDONESIA  
5 PROJECTS TO DATE

ROMAN LUAN  
TIMOR-LESTE  
3 PROJECTS TO DATE

YAYA EDUCATION TRUST  
KENYA  
3 PROJECTS TO DATE



## SUPPORTING OUR LOCAL PARTNERS

### POWERING FORWARD WITH PEKKA

We powered into the second year of our partnership with PEKKA (Women Headed Household Empowerment Program) in 2012. We continued to work together in West Nusa Tenggara and expanded into East Nusa Tenggara, reaching two of the poorest provinces of Indonesia with life-changing technology.

Working in the remote district of East Flores brought new challenges, such as negotiating complicated shipping logistics for the delivery of 1,200 technology products to seven sub-districts.

The solar lights, water filters and clean cook stoves are made available at a subsidized rate to PEKKA members, women who are household-heads, largely widows and women who are separated from their husbands.

Payments can be made in instalments, to make the technologies accessible to the people who need them the most. The technology products are being distributed through the technology agent distribution model.

To strengthen the partnership we placed a Field Officer, Imanta Kasih Sembiring, in East Flores for

four months to train the women on how to use, maintain and repair their new technologies. Imanta also conducted 'training of trainer' sessions for selected PEKKA leaders, who developed the skills to train other women. More than 1,200 women participated in the training, gaining the skills and confidence to use their newly-purchased technologies.

Imanta says that the challenges of reaching 28 remote villages in East Flores were outweighed by the rewards of seeing how the new technologies are being embraced by the women.

**“I never imagined that cooking could be so easy and efficient with fuels that are available around me. I love this cook stove.”**

“After delivering a training on the UB.03-1 Biomass Stove recently, Agnes Rawa Dore, a 54 year old lady from Demon Pagong, came up to me and said, ‘I never imagined that cooking could be so easy and efficient with fuels that are available around me. I love this cook stove’. This kind of testimony makes me smile at the end of a training.”

To date we have distributed 2,200 clean cook-stoves, water filters and solar lights through our partnership with PEKKA, making safe water, cooking and light available to more than 10,000 people.

# MEASURING IMPACT

WE STUDIED HOW OUR TECHNOLOGIES ARE BEING USED.



## KOPERNIK FELLOWS

Kopernik Fellows supported our local partners to develop technology distribution plans, and to conduct baseline surveys, follow-up surveys and rapid impact assessments. Their work helped us to improve data collection on technology impact. They also shared impact stories from the last mile on our Kopernik in Action blog.



## IMPACT ASSESSMENTS

In 2012 we published impact reports on:

[D.LIGHT S10 & S250 SOLAR LIGHTS](#) | The Philippines

[D.LIGHT S250 SOLAR LIGHTS](#) | Timor-Leste

[DRIPTech IRRIGATION SYSTEM](#) | India

[GREENWAY SMART STOVES](#) | India

[UB.03-1 BIOMASS STOVES](#) | Indonesia

[NAZAVA WATER FILTERS](#) | Indonesia

We also published feedback from our local partners.



## ACADEMIC PARTNERSHIPS

Kopernik continued its partnership with Columbia University's School of International and Public Affairs (SIPA). A team of six SIPA students conducted an impact assessment of the Agents of Technology, Agents of Change project in West Nusa Tenggara, Indonesia, identifying ways to improve the distribution model and collecting valuable feedback on the durability of the UB.03-1 Biomass Stoves.



FRONTLINE SMS

## FRONTLINESMS

We used FrontlineSMS, a text messaging software system, to collect feedback from clean cookstove technology users in East Nusa Tenggara, Indonesia. We received a response rate of 50 percent, with the majority of respondents rating the performance of their cookstove as good or very good. We plan to expand our use of FrontlineSMS to collect feedback, and also to share tips about maintaining technologies.

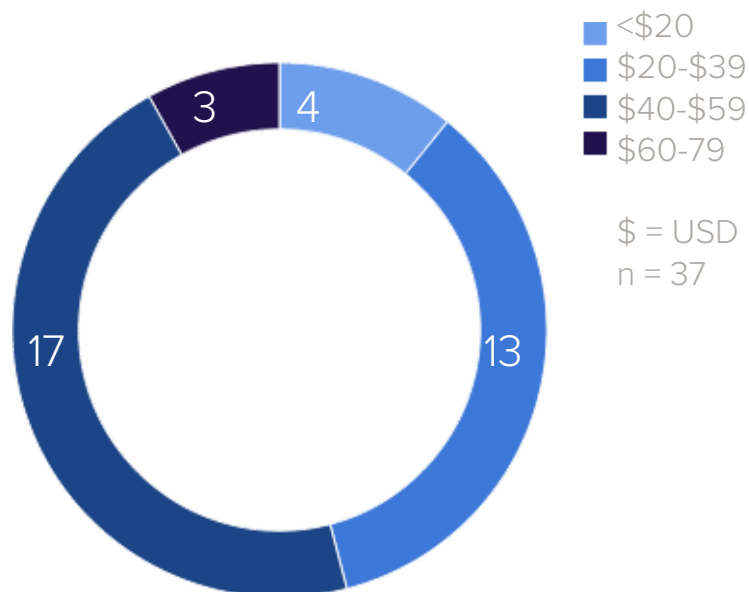
# MEASURING IMPACT

## A SMALL SAMPLE OF OUR IMPACT ASSESSMENTS IN 2012

### DRIPTECH IRRIGATION SYSTEM | INDIA (2011)

After installing the Dripteck system, farmers reported an average increase in household savings of US\$40, from increased crop yield generating increased income. This is a significant amount of savings given the average income per household is US\$340 per annum.

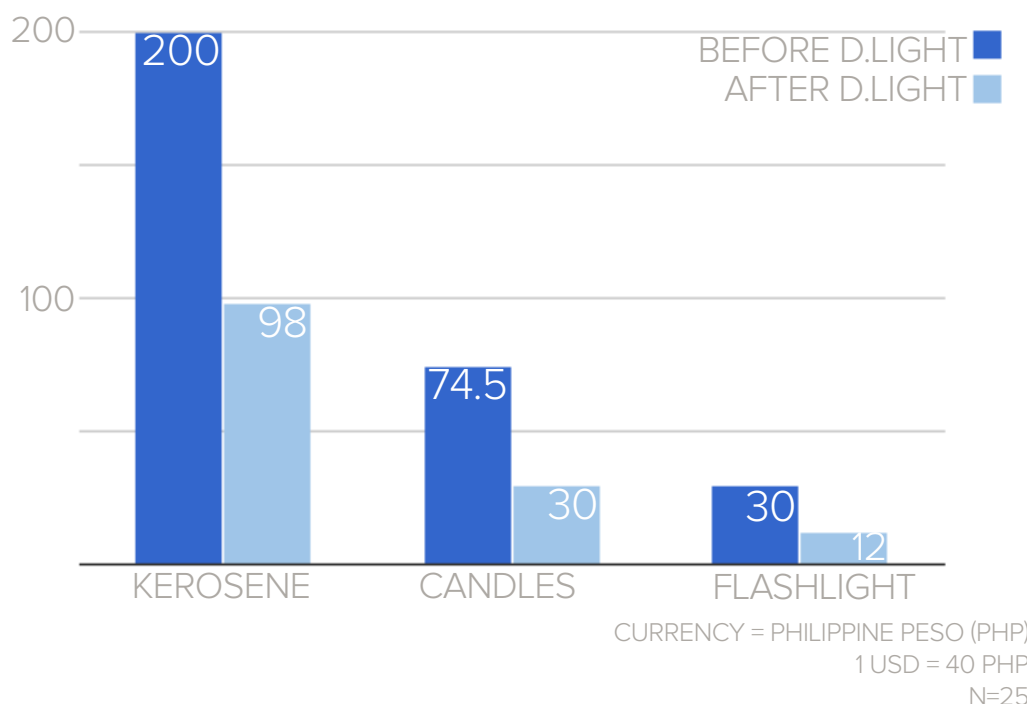
HOUSEHOLD SAVINGS FROM USING DRIPTECH



### D.LIGHT SOLAR LIGHTS | THE PHILIPPINES

After purchasing a d.light solar light, off-grid households reduced their spending on kerosene by more than 50%, and on other lighting sources by even more.

HOUSEHOLD SPENDING ON LIGHTING SOURCES



# WHO WE HELPED

## A SMALL SAMPLE OF THE PEOPLE WE REACHED IN 2012



ROSE NICADEMUS | THE PHILIPPINES  
D.LIGHT S250

“I purchased the d.light S250 to help care for my mother. The light has helped my family immensely. My mother can use the light at night to help her find things in the dark and if she needs any assistance, I can use the d.light. Before, we had to use kerosene light which was very unpleasant”.



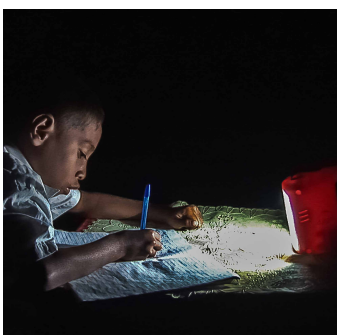
IBU NUR | INDONESIA  
UB.03-1 BIOMASS STOVE

“This stove helps me save money. I no longer have to buy kerosene, which is hard to come by in this area. It’s much easier here to look for wood or buy it. With a traditional stove, one store-bought bundle of wood would last me only about three days. But with this new stove, I can go for a week without having to buy more wood.”



NIRMALA ANANT JADHAV | INDIA  
GREENWAY SMART STOVE

Nirmala has six family members and used to cook food on the traditional *chulha*, which required 8-10kg of firewood daily. She is happy with the stove and uses almost 50 percent less firewood. She likes how she can carry the stove anywhere. In the past, during paddy harvesting and threshing, her family stayed in the farm and cooked food by using stones with the *chulha*. This season, they can carry the Greenway stove to the farm and cook food more easily.



MANUEL CABEÇAS | TIMOR-LESTE  
D.LIGHT S250

“Before using the d.light S250 my family used kerosene lamps at home, my children could not study at night. But after I bought the d.light, my children can study at night and now my son Gidion Natan Cabeças got second rank at school. In addition, we have also been able to save money by not having to buy kerosene and candles.”



BRENDA AKINYI | KENYA  
Q DRUM

“I used to miss class in order to fetch water but now my school attendance is regular. Before I started using the Q Drum, I could feel physical pain all-over my body, sometimes, with severe headache and backache, but now all is gone. I am very grateful for all those who made this Q Drum available here. It has significantly changed my life”.



## LAST MILE CONSULTING

We launched Last Mile Consulting in 2012 to diversify our sources of funding and support other organisations wanting to develop or distribute innovative technologies to reduce poverty.

Our consulting arm draws on Kopernik's experience in technology for development to offer services to corporations, foundations and aid agencies. The revenue from Last Mile Consulting funds Kopernik's work making simple technologies available to people in the last mile.

Last Mile Consulting offers guidance in the areas of energy and environment, water and sanitation, health, education, agriculture, information and communication technology (ICT) and mobile technology.

Led by Kopernik co-founder and CEO Toshi Nakamura, the consulting team consists of experienced business professionals, engineers and development practitioners from countries including Australia, Japan and Indonesia. Nakamura says, "through this service, we hope to engage more players to design and produce appropriate technologies that will benefit the poor."

Last Mile Consulting helps clients to test technologies and collect feedback, build channels for technology distribution, design projects, develop policy and strategy, and broker partnerships.

In the second half of 2012 Last Mile Consulting worked with Benesse Corporation, the largest educational company in Japan, to introduce educational toys to schools in Bali.

**"We hope to engage more players to design and produce appropriate technologies that will benefit the poor."** Education retention is a major challenge in Indonesia, where almost half of the labour force did not continue studying beyond elementary school. Sparking a child's passion to learn at school is incredibly important.

During classroom visits in December we introduced two educational toys as teaching aids, developing a teaching flow based on local curriculum to incorporate the toys into regular lessons. More than 80 students took part in the classroom activities. Using the educational toys seemed to help them understand the lesson better and triggered their enthusiasm to learn more.

Last Mile Consulting services have helped Benesse Corporation to assess the viability of educational toys in the Indonesian market.

# TEDx Sendai



## IN THE NEWS

WE WERE HONOURED TO RECEIVE AWARDS & RECOGNITION.



KOPERNIK CO-FOUNDER EWA WOJKOWSKA RECEIVED THE RUTGERS UNIVERSITY SOCIAL ENTREPRENEUR OF THE YEAR AWARD IN APRIL 2012.

KOPERNIK CO-FOUNDER TOSHI NAKAMURA WAS SELECTED AS A WORLD ECONOMIC FORUM YOUNG GLOBAL LEADER.



WE WERE FEATURED IN PRINT, RADIO, TV AND ONLINE MEDIA.



WE SPOKE ABOUT REACHING THE LAST MILE AT MAJOR EVENTS.





# PARTNERS

## FUNDING PARTNERS



## ACADEMIC AND RESEARCH PARTNERS



# PARTNERS

## PRO BONO & IN KIND SUPPORT

## NETWORK PARTNERS



# TEAM KOPERNIK

THE DYNAMIC & TALENTED K-TEAM MAKES ALL OF THIS HAPPEN.

## CURRENT TEAM

TRIANA AFINNI	SALLY BOLTON	TANYA BOSSHARD	WERNER BRANDT
PUTU MONICA CHRISTY	ALEX FRANS	NI MADE GARSU	AMBER GREGORY
ASHLEY GRIMES	TOMOHIRO HAMAKAWA	RARA SEKAR LARASATI	TOSHI NAKAMURA
IMANTA SEMBIRING	CHRISTAL SETYOBUDI	LINCOLN SIHOTANG	I KETUT SUASTIKA
DENI SUGIARTO	HIROMI TENGEJI	EWA WOJKOWSKA	SANG PUTU YOHANES

## OTHER STAFF IN 2012

WAYAN BUDIARTA	DEDY HANING	BOMA HARAHAP	MADE
CINDY NAWILIS	ANDY PRADJAPUTRA	MARIA SITORUS	JORDI TABLADA

## KOPERNIK FELLOWS

FITA ARIEF	JESSICA KORTEMAN	GORDON LITTLE	EMILY MCQUALTER
CARISSA PARAMITA	OLGA PERMANYER	ROB WEISS	YUMIKO YAMADA

## OTHER SUPPORTERS

LUSSE CLOUTIER	JOHN KELLEHER	EARL KIM	GABRIELA LEITE-SOARES
ANNIE O'BRIEN	LAURA SURROCA	I NENGAH WARSA	

## BOARD OF DIRECTORS

MARC BLAZER	VIVIAN DIAMOND	LINDA GOTTLIEB	OSAMU KANEDA
ABIGAIL SCHWARTZ			

## ADVISORY BOARD

RUMA BOSE	SANJAY GANDHI	NINA GIDWANEY	SCOTT GUGGENHEIM
GUY JANSSEN	ASAM KILGOUR	MARI KOGISO	SIR TIM LANKESTER
DAVID MADDEN	DR RICHARD MAMMONE	RICHARD MANNING	EDWARD REES
NIGEL SNOAD	TAKU SUGIMOTO	LISA WITTER	ANDREA WOODHOUSE

# FUNDING

WE DIVERSIFIED OUR SOURCES OF FUNDING IN 2012

1.

WE STRENGTHENED OUR PARTNERSHIPS WITH CORE **CORPORATE AND FOUNDATION DONORS**.

2.

WE FUNDED PROJECTS THROUGH **INDIVIDUAL DONATIONS** ON OUR ENGLISH AND JAPANESE WEBSITES.

3.

WE RECEIVED MONTHLY DONATIONS FROM OUR **TIPPING POINT DONORS** WHO HELPED TO FULLY FUND A WIDE RANGE OF PROJECTS.

4.

WE RAISED MONEY THROUGH **FUND-RAISING EVENTS** LIKE WINE INTO WATER, COOKS4COOKS, BAR KOPERNIK & THE YAYASAN KOPERNIK OPENING PARTY.

5.

**WE LAUNCHED LAST MILE CONSULTING**, WITH ALL PROCEEDS GOING TOWARDS FUNDING KOPERNIK'S PROJECTS AND OPERATIONS.

6.

WE RECEIVED **REPAYMENTS FROM OUR LOCAL PARTNERS** FOR TECHNOLOGY SALES, AND REINVESTED THESE FUNDS IN FURTHER PROJECTS.

7.

WE RAISED PROJECT FUNDS THROUGH **TECHNOLOGY SALES** FROM OUR FIRST WARTEK TECHNOLOGY STORE AT OUR OFFICE IN UBUD, BALI, INDONESIA.

# FINANCIALS

	2011	2012
<b>REVENUE</b>		
<b>EARMARKED</b>		
INDIVIDUAL	66,939	72,041
CORPORATIONS	163,631	126,503
FOUNDATIONS & GOVERNMENT	35,000	36,155
TECH SEEKER REPAYMENT	27,316	32,744
<i>SUBTOTAL</i>	<i>292,886</i>	<i>267,443</i>
<b>NON EARMARKED</b>		
INDIVIDUAL	105,673	41,422
CORPORATIONS	135,398	350,000
FOUNDATIONS & GOVERNMENT	40,961	1,993
IN KIND DONATIONS	37,797	63,350
<i>SUBTOTAL</i>	<i>319,829</i>	<i>456,765</i>
<b>OTHER</b>		
CONSULTING	10,965	26,059
TECHNOLOGY SALES	22,104	21,173
MISCELLANEOUS	84	1,051
<i>SUBTOTAL</i>	<i>33,153</i>	<i>48,283</i>
<b>REVENUE TOTAL</b>	<b>645,868</b>	<b>772,491</b>
<b>EXPENSES</b>		
<b>PROGRAM</b>		
EARMARKED PROJECTS	243,858	227,863
COST OF TECHNOLOGY SALES	15,159	11,779
PROGRAM SUPPORT	111,744	127,384
<i>SUBTOTAL</i>	<i>370,761</i>	<i>367,026</i>
<b>PR &amp; FUNDRAISING</b>	<i>60,889</i>	<i>74,846</i>
<b>OPERATIONS SUPPORT</b>		
SALARIES & RELATED	30,373	36,948
OFFICE COSTS	22,891	20,998
INTERNET, TELEPHONE & POST	8,194	7,635
MISCELLANEOUS	11,453	4,764
BANK FEES	12,592	5,917
LEGAL & ACCOUNTING	1,288	37,290
<i>SUBTOTAL</i>	<i>86,791</i>	<i>113,552</i>
<b>EXPENSES TOTAL</b>	<b>518,441</b>	<b>555,424</b>
<b>CHANGES IN NET ASSETS</b>	<b>127,427</b>	<b>217,067</b>

All figures in USD. Financial figures for 2011 are based on the audited Financial Statements. Figures for 2012 are preliminary only. The breakdown of costs has been adjusted to allow for comparison with the previous annual report.