**KOPERNIK ANNUAL REPORT 2018** Advancing Innovation and Collaboration to Find What Works in Reducing Poverty

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## I. ADVANCING INNOVATION AND BUILDING COLLABORATION TO FIND WHAT WORKS IN REDUCING POVERTY

Kopernik believes in the power of collective impact. Finding effective and practical solutions to today's development challenges demands a coordinated and collaborated effort. In the second year of Kopernik's lean experimentation approach, we tested a number of breakthrough and innovative ideas, and also extended partnerships with the public, private and creative sectors in attempt to share our knowledge and results. As we reflect upon Kopernik's work in 2018, we look forward to more partnerships with a range of partners with a shared mission of finding what works towards poverty reduction.



Lean experimentation
 Experimentation with clients
 Technology distribution

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## II. LEAN EXPERIMENTATION SOLUTIONS LAB

Through lean experimentation, Kopernik's Solutions Lab team aims to determine which ideas work - or do not work - in solving the common challenges faced by low income communities. For example, the prototyping process for our honey filters initially involved a small group of honey collectors. Subsequently, based on early results which were promising the East Flores Regency's local government office for cooperatives — the DINAS Koperasi — commissioned Kopernik for 10 honey filters, enabling more farmers to access this technology. A similar prototyping process was adopted fo the "Perfect Fit" reusable menstrual pad where we continued to improve the product through three iterations, using collecting user feedback to guide the improvement of the design following a human-centered design approach.



We secured funding for **seven** experimentation projects, which will be implemented in 2019:

- ▶ Black Soldier Fly Larvae ⊘
- ► Solevolt Off-Grid Solar System ⊘
- ▶ Plastic Bottle Drip Irrigation
- ► Grain Storage ⊘
- ▶ Palmyra Leaf Cutter ⊘
- ► MATA KAIL: Creative Solutions for Sustainable Consumption and Production of Fish in East Nusa Tenggara
- ► The Perfect Fit: A Smart Entry Point to Reshape Menstrual Health Management in Indonesia



#### HONEY FILTER

Working with a group of forest honey collectors in East Flores, we developed a K-Honey Filter prototype designed to improve the honey extraction process in order to increase honey production. Our data showed that by using the K-Honey Filter, a forest honey collector can earn US\$37 in additional income per 39 kg of honey collected. We will be continuing the prototyping and testing process of new designs in 2019.

#### **GRAIN STORAGE SOLUTIONS**

Since 2017, Kopernik has been experimenting with grain storage solutions for farmers in the last mile, comparing the efficacy between the traditional method of storing grain in a woven plastic sack, hermetic plastic bags and hermetically-sealed plastic drums to prevent weevil infestation. Last year, we worked with an agronomist to test the addition of diatomaceous earth (DE) as a natural pesticide. The experiment found that the application of DE to grain during storage can reduce the number of weevils by 98 percent, while also acting as a dehumidifier, which is important in preventing aflatoxin contamination.

#### **REUSABLE MENSTRUAL PADS**

With support from Grand Challenges Canada and Simavi, we kicked off a project to develop and test affordable reusable menstrual pads for women and girls in Ruteng, East Manggarai, using the product development process as an entry point to open up a dialogue about menstrual health. The project is a follow-up to Kopernik's small-scale randomized control trial (RCT) in 2017 that evaluated the link between access to menstrual products and the attendance of schoolgirls in Sumba. In 2019, we will increase our reach, experimenting with sales strategies to distribute 22,000 pads to around 5,500 people.



sew all of the fabric with her sewing machine. I really appreciate this initiative because now I have a reliable source of income to pay for the tuition fees of my children."

**Thomas Riwu**, the husband of Ibu Yohana, one of the tailors in Ruteng, East Manggarai working with Kopernik to make reusable menstrual pads.

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## III. EXPERIMENTATION WITH CLIENTS LAST MILE CONSULTING

Last Mile Consulting (LMC) is Kopernik's professional advisory service working with corporate and public sector clients who are exploring innovative products or services that serve the needs of communities in emerging markets. In 2018 the consulting team carried out several notable projects continued from the year before - namely, the Integrated Community and Home Protection (ICHP) initiative with Unilever and the Unmet Needs research study.

# 21

multinational corporations, multilateral agencies, social enterprises, and international organizations engaged Kopernik's Last Mile Consulting (LMC) team in 2018.

## **»KEY PROJECTS**

#### IDENTIFYING THE UNMET NEEDS OF FARMERS

With support from the David & Lucile Packard Foundation, Kopernik conducted a research study to identify the challenges of smallholder farmers in the agricultural value chain in Papua, West Papua and West Kalimantan. The findings from the Unmet Needs 2018 Papua Kalimantan research were shared with civil society organizations, farmers' groups, and government officials through workshops in Sanggau, West Kalimantan and Jayapura, Papua. and testing process of new designs in 2019.

#### IDENTIFYING AND MATCHING GREEN TECHNOLOGY NEEDS

Kopernik partnered with WIPO GREEN to identify clean technology needs in Indonesia and Cambodia focusing on the energy, air, water, and agriculture sectors and to match the needs with corresponding available green technologies. The project, which was financially supported by the Australian Government and WIPO Asia Pacific, identified 20 needs and was successful in matching several seekers and providers, including a dew water harvester with Bali-based Green School. Kopernik also co-hosted a 'matchmaking' event at the Asia Clean Energy Forum (ACEF) 2018 in Manila, Philippines on 4 June 2018.





# STRENGTHENING MOSQUITO CONTROL IN MYANMAR

Protection against mosquito-borne disease remains patchy in regions of Myanmar where government initiatives have not yet reached. Kopernik partnered with TRANSFORM, a joint initiative of Unilever and the United Kingdom's Department for International Development, to develop and test market-based solutions for improved mosquito control in Myanmar. Through focus group discussions, home-user tests, and pilot sales involving more than 400 participants in urban and rural Myanmar, Unilever and Kopernik gathered insights for potential product adoption in the Myanmar market.

#### EVALUATING THE IMPACT OF MARKET SYSTEMS DEVELOPMENT

In partnership with the DFAT-funded PRISMA (Promoting Rural Income through Support for Markets in Agriculture) program, Kopernik evaluated the impact of PRISMA'S market development training program for government officials in five provinces: East Java, East and West Nusa Tenggara, Papua and West Papua. The training program is a part of PRISMA's roadmap to foster partnerships between the department of agriculture and private sector players in supporting market development for agricultural commodities.

# **IV. LAST MILE DISTRIBUTION**

Kopernik works with corporate partners, civil society organizations, and local governments in connecting underserved communities with access to products and services needed to address their unserved needs. Throughout 2018, we distributed clean energy technologies to remote areas such as East Nusa Tenggara and Maluku, delivered life-saving emergency supplies to families affected by major disasters in Bali, Lombok and Central Sulawesi, and provided skills training for women entrepreneurs in East Java to grow their businesses.

RANTI

IMPAT PUTRA



#### KAMPUNG TERANG HEMAT ENERGI

For the past three years, Kopernik has partnered with Signify, formerly known as Philips Lighting Indonesia, to bring access to lighting to people in rural areas through the Kampung Terang Hemat Energi (KTHE), or Bright and Energy Saving Villages, program. In 2018, the program focused on delivering solar lighting to villages in three provinces: Central Kalimantan, Bali, and Maluku. In implementing the initiative, Kopernik also worked with the National Team for the Acceleration of Poverty Reduction (TNP2K).







#### **Central Kalimantan**

- Daily use of the Signify solar lighting reduced the cost of purchasing kerosene from IDR 154,200 to IDR 12,100 per month.
- •76% of technology users reported at least one extended night time activity thanks to the solar home system.

#### Maluku

- Daily use of the Signify solar lighting reduced the cost of purchasing kerosene from IDR 59,800 to IDR 13,500 per month.
- There was a perceived 18% reduction in breathing problems.
- 32% of users reported at least one extended night time activity thanks to the solar home system.

"Kopernik has a good vision and better understanding of how to provide support to poor and vulnerable communities....The program has successfully improved productivity and social cohesion of the targeted beneficiaries. We look forward to working with Kopernik in the future."

Ruddy Gobel, Chief of Communications and Partnership, The National Team for the Acceleration of Poverty Reduction (TNP2K).

Solar Panel

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**>>KOPERNIK** 

**PHILIPS** Solar Panel

AMRLS

PHILIPS

HI PAZ

#### WONDER WOMEN EASTERN INDONESIA

In December 2018 Kopernik concluded the award-winning Wonder Women Eastern Indonesia program after operating for five years. The program worked with a network of more than 400 women entrepreneurs in connecting communities in eastern Indonesia with clean energy technology such as solar lights, water filters, and biomass cookstoves. Spanning 2014 to 2018, the program supported the livelihoods of the women entrepreneurs, realized through a combination of fuel savings, income generation, as well as reducing CO2 emissions. For the users, the clean technologies have been reported to improve their health and quality of life.

# 31,946 technologies distributed



people reached



tonnes carbon emissions reduced



#### **EMERGENCY RESPONSE**

Indonesia was hit by several major natural disasters in 2018 that led to the displacement of hundreds of thousands of people. Thanks to the support of our crowdfunding and institutional donors, Kopernik's emergency response team was able to respond quickly to the urgent needs of the disaster-affected families. Distribution of critical supplies responded to urgent needs identified on the ground and empowered affected families in the transition to rebuild and rehabilitate their lives after the disaster.

We responded to **three** major emergencies in 2018:

 Lombok Emergency Response 
 Palu Emergency Response 
 Sunda Strait Tsunami Emergency Response

#### Lombok Emergency Response

Nearly 400,000 people in Lombok were displaced from their homes after a series of earthquakes ranging 5.0-7.0 in magnitude shook the island in August 2018. Kopernik supported affected communities in Sembalun Bumbung, East Lombok; Salut, North Lombok; as well as Ban, Karangasem, Bali.

Kopernik distributed basic supplies such as rice, cooking utensils, and tarps as well as: **54 water tanks 947 reconstruction kits 1,100 shelter kits 1,100 pairs of boots 1,114 hygiene kits 2,500 water filters** 

Kopernik, with its partners, also conducted **37** hygiene and nutrition promotion sessions, and constructed:

20 emergency latrines 22 temporary bamboo dwellings 5 temporary schools

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#### Palu Emergency Response

More than 220,000 people in Central Sulawesi were displaced from their homes and struggled to get access to basic supplies after a 7.4magnitude earthquake and a tsunami devastated parts of the province on 28 September 2018. Certain areas were also hit by liquefaction.

In 2018, in partnership with Mosintuwu Institute and SKP-HAM, Kopernik distributed: 443 solar lights 628 water filters

Kopernik also delivered various emergency food and non-food items, and supported **91** public kitchens in Palu, Sigi, and Donggala.

Our Emergency Response activities in Palu, Sigi and Donggala continued well into 2019.





#### Sunda Strait Tsunami Emergency Response

A tsunami in the Sunda Strait hit parts of Lampung and Banten on the evening of 22 December 2018, displacing more than 5,500 people in the area.

In partnership with Humanitarian Forum Indonesia (HFI), Kopernik distributed: 500 water filters 500 solar lights 500 family kits





#### WONDER WOMEN WESTERN INDONESIA

The Wonder Women program supports women micro entrepreneurs in Bojonegoro and Tuban, East Java with the skills and resources needed to grow profitable and resilient businesses, to lift them and their families out of poverty. We are working with 41 women entrepreneurs who have businesses in the snack and beverage sector, as well as craft making such as batik. Women entrepreneurs who join the program participate in training sessions aimed to help them access wider markets as well as to strengthen networks with financial institutions, government and buyers. Throughout 2018, Kopernik organized 14 training sessions on topics such as leadership, financial management, food preparation and safety, and marketing, involving key government agencies such as the Department of Industry and Commerce of East Java. The Wonder Women reported greater access to markets after the training.

We also continued a partnership with sustainable luxury brand Sukkha Citta in supporting a group of women batik artisans in Tuban, East Java with a workshop on natural color dyes as well as access to premium markets through Sukkha Citta's online platform.

new vendor relationships established



33%

average net profit increase



#### **Beyond Numbers**

- Kustini, a 'wonder woman' who works as a batik artisan in Tuban, received intellectual property rights for five of her batik patterns from the National Craft Council.
- With access to wider markets, Anna Nurhayati, a 'wonder woman' who runs a emping girut (arrowroot chips) business in Bojonegoro, was able to generate enough income to buy raw materials directly from farmers, cutting through the middlemen who used to dominate the market with low rates. This has resulted in both the farmers and Anna getting a better deal.
- •A group of Wonder Women in Bojonegoro formed a community group to exchange their experiences. The group has now evolved into a semi-formal entity (Paguyuban) which pools some of the profits of the women entrepreneurs and offers soft loans to any member who needs funds. Three Paguyuban members have used this facility to expand their business, and one woman took out a loan to buy a refrigerator for her business.

"The Wonder Women program aligns with the government's efforts to empower people, particularly women, through business development...We have a common goal to support the livelihoods of women in the greater goal to reduce poverty."

**Elza Deba Agustina**, Head of the Department of Cooperatives and Micro-Businesses in Bojonegoro District.

# V. SPECIAL INITIATIVES: CREATIVE PARTNERSHIPS

Through our creative partnerships, we collaborate with artists, filmmakers and musicians to reach a wider audience.

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#### KOPERNIK DAY (K-DAY) 2018

For our eight anniversary, Kopernik hosted Kopernik Day (K-Day) 2018 which showcased our collaboration with various partners and our efforts to find what works to reduce poverty. K-Day has now become an annual gathering of music, art and ideas featuring Kopernik's experimentation work and the work of our diverse partners, from community groups and civil society organizations to musicians and filmmakers.

#### **'TERUS BERJUANG' MUSIC VIDEO**

In partnership with Bali-based rock band Navicula, and award-winning Film Director Erick EST, Kopernik launched a music video — "Terus Berjuang" ("Keep Up the Fight").

The collaborative project features Kopernik's work in Sumba, and highlights the issue of energy poverty in Indonesia's eastern regions as well as the efforts of community activists to bridge that gap. Navicula is widely acclaimed for its songs promoting social justice, and Robi, Navicula's founder and frontman, along with Kopernik's co-founder Ewa Wojkowska are part of the Asia Society Asia 21 Young Leaders network.



#### **PULAU PLASTIK**

In 2018 Kopernik partnered with Gede Robi, the lead singer of Navicula, production house Akarumput, and a number of other creative local film makers on Pulau Plastik, a collaborative project to draw attention to the issue of plastic waste in Bali, uncovering the inconvenient truths about how it ends up in our landfills, our oceans and our food.

We are developing video content with a behavior change approach that examines waste in the context of Balinese culture through the eyes of local champions that can inspire Bali residents to create positive change on the island and beyond. The pilot episode of Pulau Plastik was screened at several events in 2018, such as the Urban Social Forum 2018 and the Our Oceans Conference 2018.

Pulau Plastik is Kopernik's first real dive into behavior change, which is a new challenge that differs from the primarily technology focused experiments we've conducted in the past. In 2019 we are working to develop the project into something much bigger with exciting new partners coming onboard.



## **VI. COMMUNICATIONS AND OUTREACH**

#### NATIONAL & INTERNATIONAL MEDIA COVERAGE

Kopernik's work has been widely reported across an array of national and international media outlets including the DAAI TV, the Jakarta Post, NextBillion and Tech in Asia.



AVPN (7) Two Insights to Overcome the Challenges of Selling in the Last Mile

## JAKARTAGLOBE

The Jakarta Globe Bali-Based Environmental Non-Profit Kopernik Partners With Artists to Reach Broader Audience



**Tech in Asia** (7) 3 lessons we learned building our healthtech app in Indonesia



Next Billion Building Markets, Building Cohesion: Lessons from Last-Mile Deliveries

> Yale school of MANAGEMENT

Yale School of Management Blog 
A Student Team Tackles Indonesia's Trash Problem



Panasonic (7) Indonesia: The treasure of "light" delivered to hard to reach places



#### EVENT ATTENDANCE AND SPONSORSHIP

Kopernik participated in a number of regional and national events including:

- 1. The Asia Clean Energy Forum 2018
- 2. Pacific Menstrual Health Management Conference 2018
- 3. Indonesia Development Forum 2018
- 4. Our Oceans Conference
- 5. AVPN Impact Measurement Workshop



## VII. KOPERNIK'S CONTRIBUTION TO THE SUSTAINABLE DEVELOPMENT GOALS



Wonder Women Western Indonesia

# **VIII. FINANCIAL REPORTING**

#### **KOPERNIK SOLUTIONS**

Activity Statement (Excludes Yayasan Kopernik <a>?, PT Kopernik, and Kopernik Japan)</a>

January - December 2018	Jan - Dec 2018	Jan - Dec 2017
REVENUE	in USD	
Donations and Grants		
Individual	102,296	102,241
Corporations	37,160	11,250
Foundations and Nonprofits	14,458	973,562
Subtotal	153,914*	1,087,053
Others		
Consultancy/Honorarium	150,149	183,851
Investment gain and interest	-11,975	59,050
Subtotal	138,174	242,901
Revenue total	292,088*	1,329,954
EXPENSES		
PROJECTS		
Awards and Grants**	546,199	563,491
Technology incl. shipping		36,038
Project staff and consultants	199,443	121,158
Subtotal	745,642	720,687
FUNDRAISING	62,386	40,240
TRAVEL AND MEETINGS	7,959	64,497
OPERATIONS		
Salaries and related	56,337	37,014
Internet & Comm & Mail	13,911	14,089
Office expense	2,955	10,689
Audit, legal and Tax	9,108	30,209
Miscellaneous		2,256
Exchange rate loss	1,047	15,561
Subtotal	83,358	109,818
TOTAL EXPENSES	899,345	935,242

\* This excludes restricted income received in 2017 for 2018 activities = USD 366,086 \*\* Grants for projects implemented in Indonesia

Source: 2017 totals as per audited financial statements, 2018 as per financial statements still subject to changes by the audit

## **IX. PARTNERS & SUPPORTERS**

#### **PROJECT PARTNERS**

- ► Akarumput ⊘
- ► AKVO ⊘
- ► Asa Film ⊘
- ▶ Ayo Indonesia Foundation ⊘
- ▶ Bengkel Appek ⊘
- ▶ Black Soldier Fly Farm Bali ⊘
- ▶ Du'Anyam ⊘
- ▶ East Bali Poverty Project ⊘
- ▶ Forgotten Flavours ⊘
- ▶ Institut Mosintuwu ⊘
- ▶ Koperasi Banyu Urip ⊘
- ▶ Precious Plastics Bali ⊘
- Simavi
- ▶ SKPHAM Sulawesi Tengah ⊘
- ► Solevolt ⊘
- ▶ SukkhaCitta ⊘
- ▶ The Humanitarian Forum ⊘
- ▶ Yakkum Emergency Unit ⊘
- Yale Global Social Enterprise program
- ▶ Yayasan Betang Borneo ⊘
- ▶ Yayasan Walang Perempuan ⊘

#### SUPPORTERS & CLIENTS

- ► AVPN ⑦
- ▶ Bali International Women's Association ⊘
- ▶ British Council ⊘
- ► CARE International
- Cisco
- ▶ Daiwa Securities Group Inc.⊘
- ▶ David and Lucile Packard Foundation ⊘
- ▶ Deutsche Schule Jakarta ⊘
- ► DIAGEO ⑦
- ▶ Energia ⊘
- ▶ Exxon Mobil Foundation ⊘
- ▶ Folia Water, Inc. ⊘
- ► FORD Foundation ⑦
- ▶ French Embassy Jakarta ⊘
- Friends of Lombok Toronto
- ▶ Goldman Sachs ⊘
- ► Grand Challenges Canada ⊘
- ► Green School ⊘
- ▶ Hard Rock Cafe Bali ⊘
- ► ICCO Corporation
- ▶ Jakarta Japan Network ⊘
- ▶ Japan Airlines Co., Ltd. ⊘
- ▶ Japan International Cooperation Agency ⊘

- ► McKinsey & Company ⊘
- ► Mitsubishi Electric Corporation ②
- ▶ National Geographic Society ⊘
- ▶ NHK Educational Corporation ⊘
- ► Omnia 🔊
- ▶ Panasonic Corporation ⑦
- ► PRISMA ⑦
- PT Agung Nusa Mas
- ▶ PT Selamat Sempurna ⊘
- ▶ Russell Investments Japan Co., Ltd. ⊘
- ▶ Sarah Wirawan Swamitra Internasional ⊘
- ► Signify ⊘
- ▶ South Pole Indonesia ⊘
- Sunrise School 
  ⊘
- ▶ Superman is Dead/Adib Hidayat ⊘
- Surabaya European School
- ▶ The Body Shop Indonesia ⊘
- 🕨 Titi Batu Bali 🔊
- ▶ Transform (Unilever & DFID) ⊘
- ► UNICEF ⊘
- ► World Intellectual Property Organization
- ► Yayasan Ecole Internationale Francaise
- ▶ Yayasan Plan International Indonesia ⊘

#### VOLUNTEERS/FELLOWS/INTERNS





















total of social media supporters (LinkedIn, Facebook, Twitter, Instagram)





"The impact we achieved in 2018 is only possible thanks to the incredible support of our team, donors, partners, and supporters. We are very excited to embark on more opportunities that advance innovation and build more collaboration towards poverty reduction in 2019."

Toshi Nakamura and Ewa Wojkowska Co-Founders



