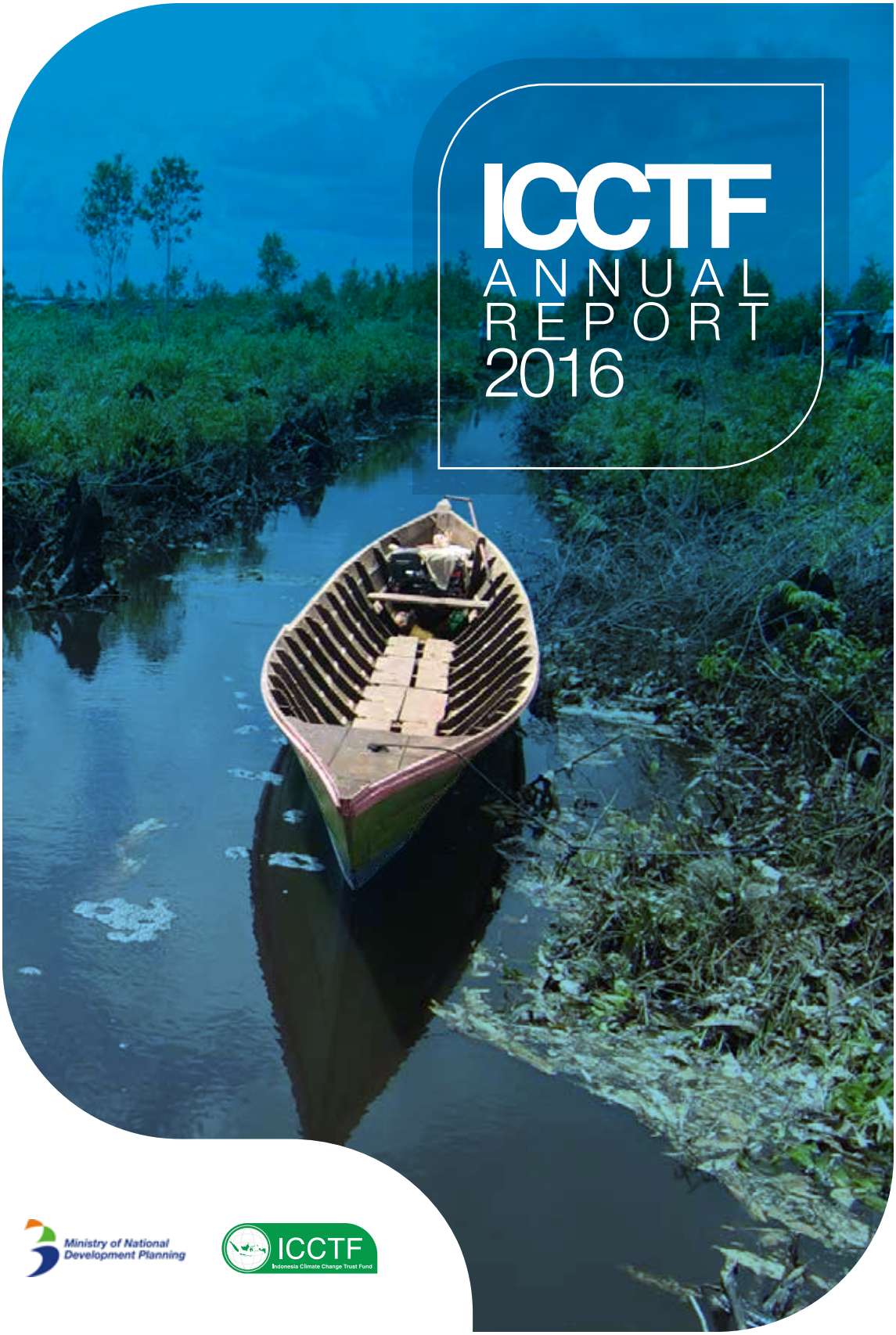

ICCTF ANNUAL REPORT 2016

Ministry of National Development Planning

ICCTF
Indonesia Climate Change Trust Fund

FOREWORDS

Honorable stakeholders,

We express our gratitude to the only God for the great year of 2016. The Indonesia Climate Change Trust Fund (ICCTF) has maintained its excellent work all year long in supporting the effort of reducing Greenhouse Gas (GHG) emissions in accordance with the 2015-2019 Medium-Term National Development Plan (RPJMN).

Since the 2015 Paris Agreement was signed, the world has been focused at the effort to reach the target of reducing Earth's temperature by 2°C through global mitigation and adaptation programs, as well as fund mobilizations. In response, the ICCTF has taken part through its active role to attain the target.

ICCTF is supported by the Government of Indonesia's funding and commitment, as well as its development partners, e.g. USAID, United Kingdom Climate Change Unit (UKCCU), and the Government of the Kingdom of Denmark. ICCTF channels the funding it has received to climate change mitigation programs according to their three focus areas, namely Land-Based Mitigation, Energy, and Adaptation and Resilience. ICCTF also expands its partnerships in climate change mitigation efforts with another parties such as the private sectors.

The board of trustees assess that ICCTF needs to be more efficient in channeling funds, in order to face bigger challenges and opportunities in coming years. A research has shown that ICCTF would be stronger had it created partnership with trusted banking institutions.

We are very sanguine about the New ICCTF, which consists of our new structural targets, mitigation and adaptation programs that aim to reach the target of 2°C decrease of Earth's temperature will run more effectively. We do hope that we are navigating ICCTF towards betterments through empowerment together with our partners.

On behalf of the ICCTF Board of Trustees,

Gellwynn Jusuf
Deputy Minister for Maritime and
Natural Resources
Ministry of National Development Planning/
National Development Planning Agency
As the Head of ICCTF Board of Trustees

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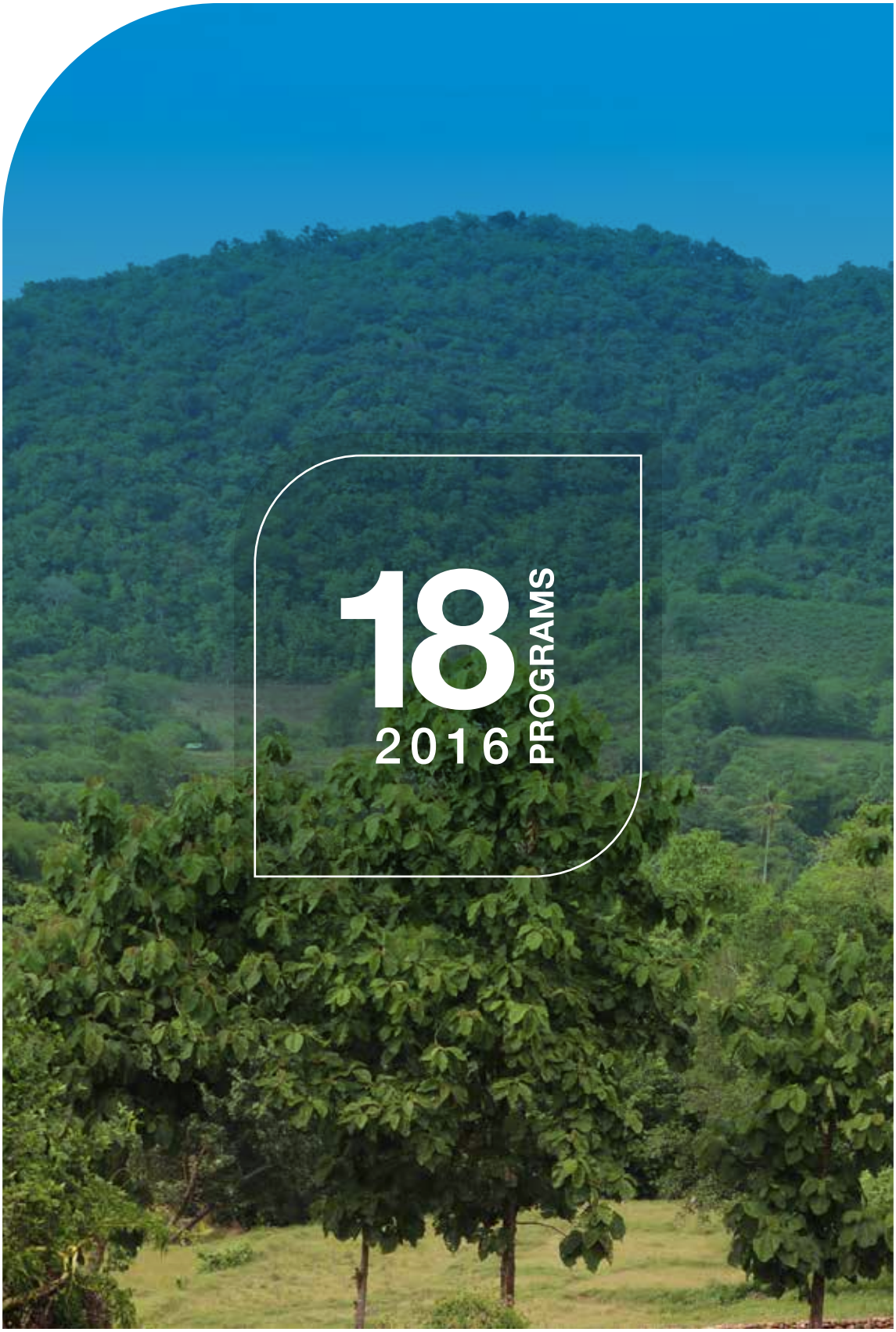
EXECUTIVE SUMMARY

Indonesia Climate Change Trust Fund is the only trust fund organization under the Government of Indonesia for climate change. ICCTF was established to increase the effectivity and efficiency of climate change mitigation coordination in Indonesia. ICCTF is in accordance to the National/Local Action Plan on Greenhouse Gas Emmissions Reduction (RAN/RAD-GRK) and National Action Plan on Climate Change Adaptation (RAN-API).

In 2016, ICCTF continued to strengthen its organizational activities and programs in tackling climate change that have been in place since its establishment in 2009. It has funded 36 climate change mitigation programs in 2010 – 2016 in various locations in Indonesia. These programs were in accordance to the three focus areas, namely Land-Based Mitigation, Energy, and Adaptation and Resilience. These programs were conducted together with ICCTF's partners such as the related ministries, organizations, NGOs, and universities.

Key Achievements

1. ICCTF has successfully funded 18 climate change mitigation activities conducted in several locations in Indonesia. These programs were in accordance to three focus areas, namely land-based mitigation, energy, and adaptation and resilience.
2. ICCTF received IDR 9,1 billion of funding support from the 2016 state budget, and was used to support the ICCTF Secretariat's operational activities and to fund three programs on energy efficiency.
3. ICCTF also received funding support from international sources, e.g. the Royal Danish Embassy (DANIDA), United States Agency for International Development (USAID), and United Kingdom Climate Change Unit (UKCCU):
    - Funding received from the Royal Danish Embassy (DANIDA) was used to strengthen selection and supervision processes of ICCTF programs, support operational activities of ICCTF secretariat, as well as communication activities and raising awareness on climate change issues.
    - Funding received from the USAID was used to fund 15 programs with the focus area of land-based mitigation, and adaptation and resilience, which are still ongoing until the year of 2017-2018.
    - Funding received from the UKCCU was focused to fund peatland restoration and fire prevention programs in the following five provinces: Riau, Jambi, South Sumatera, Central Kalimantan, and West Kalimantan. The processes of the selecting proposals were undertaken in 2016.
4. ICCTF has successfully developed guidelines for small-grant and self-managed programs, with the support of GIZ-INFIS and under the coordination of the Ministry of National Development Planning/ the National Development Planning Agency.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2016

ICCTF funded 18 programs in 2016 using the state budget (APBN) and USAID grants. Moreover, several strategic activities to develop the focus areas of ICCTF were also funded by DANIDA.

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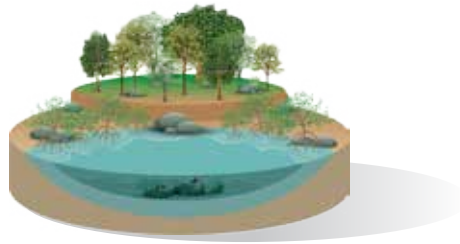
Land-Based Mitigation

PROGRAMS



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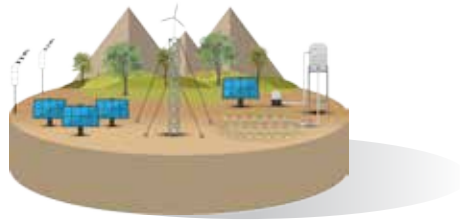
Energy

PROGRAMS



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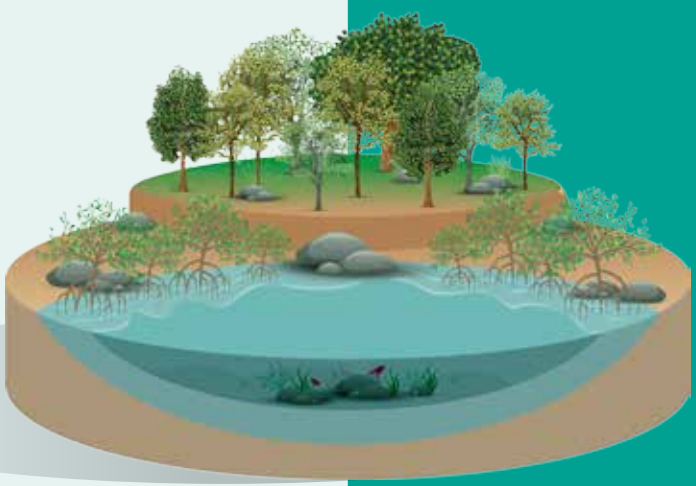
Adaptation & Resilience

PROGRAMS

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8

LAND-BASED MITIGATION
PROGRAMS

1. Walestra
2. *Perkumpulan* Sesami
3. *Yayasan Pengembangan Akhlaq Mulia* (YPAM)
4. *Yayasan* Javlec Indonesia
5. *Yayasan* Orangutan Indonesia (Yayorin)
6. University of Muhammadiyah Palangkaraya
7. *Lembaga Olah Hidup* (LOH)
8. STIK ***Yayasan*** Tengku Chik Pante Kulu

LAND-BASED MITIGATION

01.

Program's Name
Community-based Forest Conservation and Climate Change Mitigation in Kerinci Seblat Landscape

Implementing Partner
Wahana Pelestarian dan Advokasi Hutan Sumatera (Walestra)

Budget
IDR 3,274,690,000

Implementation Period
24 months
(April 2016 - March 2018)

Location
Sarolangun District and Kerinci District, Jambi Province; South Solok District, West Sumatra Province

Forest Security Patrol Team by KPHA Biang Sari was taking the coordinate points.

Buffer forest zone in Kerinci Landscape.

Background

The importance of 10 communities in 10 villages and their involvement in managing 7,000 hectares of customary forest and 5,000 hectares of critical land around Kerinci-Seblat National Park, emission reduction, and revenue improvement.

Objectives

Recovering 338,000 hectares of buffer zone in Kerinci landscape through the development of social-forestry scheme that supports climate change mitigation and greenhouse gas reduction.

Achieved Progress

1. Parkobalo Customary Institute in Kerinci District, Jambi Province has signed a declaration that supports the management and recovery efforts to protect the customary forest. A minimum forest coverage of 7,000 hectares is maintained and is managed through the village/ customary forest scheme.
    - Team has assessed the potential of community forestry scheme replication through FGD.
    - Team has reached a common agreement with related communities, developing social-forestry in 6 locations in order to obtain 4 locations ready to be facilitated.
    - Exploratory and FGD concerning village borders in project sites has been undertaken.
2. Capacity improvement related to the security of the village/ customary forest using SMART PATROL model has been conducted monthly in 6 USAID-ICCTF funded villages and in 4 FFI-IP funded villages. Findings during the monthly patrols include illegal-logging, animal-hunting, slash-and-burn, animal footprints, illegal gold-mining sites, and "*jernang*" sites. Findings were directly reported to the local authorities.
3. Raising stakeholders' awareness through competitions that involve local students, such as painting competition for elementary school students, quizzes for junior high school students, and writing competition for senior high school students. Local students in Sarolangun District took part in these activities which were conducted in KPHP Limau Unit VII Hulu Sarolangun Office.

Installation of the face frame of seed house in Talang Tinggi Village.

LAND-BASED MITIGATION

02.

Program's Name
Utilization of Biogas for Household's Energy Self-Sufficiency Efforts and Taking Part in Supporting Environmental Conservation Movements

Implementing Partner
Perkumpulan Sesami

Budget
IDR 996,730,000

Implementation Period
18 months
(June 2016 - December 2017)

Location
Magelang District,
Central Java Province

Developing biodigester by community of Magelang District.

The project site (ex-mining areas) that will be restorated throughout the project duration.

Background

The importance of reforestation in ex-sand mining sites in Mount Merapi National Park buffer zones by planting trees which are fertilized using locally made organic fertilizers by the community through their biogas businesses, and replacing firewood with biogas as fuel source, emission reduction, and revenue improvement.

Objectives

To help 2 sub-districts in Magelang District in developing community cooperative union; building 10 digesters (6 m^3), producing 4 – 5 liters of bio-slurry per unit per day (price per liter of $ 0.8), producing biogas for cooking purposes, reducing energy price for families, reducing the amount of firewood logged for energy, and reforestation of Mount Merapi National Parks with 7,000 trees.

Achieved Progress

1. Consolidation, and follow-up meeting to the stakeholders has been conducted aimed to determine the targeted rehabilitation areas (7.5 ha). Efforts to clearing the site and to prepare the arable land through labor incentive with the surrounding communities have been undertaken.
2. Meetings with the Government of Dukun Sub-District, the Government of Keningar Village, Sumber Village, and Ngargomulyo Village have been conducted. These meetings have objectives to decide digesters site and their continuation in the future. The Procurement unit/PPK Team of BLH Magelang District were also involved in selecting a vendor for the digesters construction through limited auctions.
3. Four units of digesters have been built.

The project site (ex-mining areas) that will be restorated throughout the project duration in Keningar Village, Magelang District, Central Java Provience.

LAND-BASED MITIGATION

03.

Program's Name
Cendani Bamboo Cultivation Improvement to Recover Critical Land in Grenjeng Sub-Watershed, Serang Watershed, Sampetan Village, Ampel District

Implementing Partner
Yayasan Pengembangan Akhlaq Mulia (YPAM)

Budget
IDR 415,133,250

Implementation Period
24 months
(April 2016 - March 2018)

Location
Boyolali District,
Central Java Province

Example of adult Bamboo Cendani.

Bamboo Cendani maintenance performed by villagers of Sampetan, Ampel Sub District.

Background

The importance of involving the communities in Sampetan Village, Ampel District in critical land rehabilitation, a part of water catchment area in Serang watershed, which is the buffer zone of the Mount Merbabu National Park; emission reduction, and revenue improvement.

Objectives

Supporting programs for Pemalijuana BBWS, Boyolali Water Company, Mount Merbabu National Park, Department of Public Works, Department of Agriculture and Forestry, BLH, 3 communities of 100 people, 300 elementary school students, 1 bamboo seed production unit; growth of 4,200 bamboos, 3 hectares of critical land restoration with 3,500 bamboos, 300 environmentally aware students, one self-helped group consist of 30 people.

Achieved Progress

1. FGD with village officials and communities were conducted on May 12th and 14th 2016. Workshop to plan yearly activities was held on May 26th 2016 and was attended by Sampetan Village officials and communities, and Boyolali District officials.
2. Establishment of community-based environment and legalized through notarial deed.
3. *Betung* bamboo seed survey was conducted in Yogyakarta and fruit plants survey was conducted in Semarang.
4. Planting and fertilizing of 1,500 cendani bamboos.

FGD involving YPAM, village government and citizen of Sampetan Village.

Bamboo Cendani that have been harvested and ready for the market.

LAND-BASED MITIGATION

04.

Program's Name
Land-Based Mitigation in Karst Area, Critical Watershed, and Conservation Area

Implementing Partner
Yayasan Javlec Indonesia

Budget
IDR 3,410,770,000

Implementation Period
24 months
(April 2016 – March 2018)

Location
Gunungkidul District,
Special Region of Yogyakarta

Lake as a water source for agriculture.

Carbon stock calculation by Javlec.

Backgrounds

The Importance of land-based mitigation efforts in Gunungkidul karst area which has critical watershed and conservation area in order to reduce greenhouse gas emission and to maintain the groundwater surplus reserve for the Special Region of Yogyakarta, particularly to support the continuation of Opak-Oya watershed and Bribin watershed.

Objectives

To implement land-based mitigation activities in karst area, critical watershed, and conservation area.

Achieved Progress

1. Completed trainings and carbon stock calculation experiments in 20 villages with 80 participants. The trainings have improved participants' understanding by as much as 60%. Carbon reserve average at the project sites stands at 30.01 tons eq CO_2. The represented communities are trained in carbon counting (CCA) and the calculation involved trainers from Java-Madura BPKH and the Forestry Faculty of Gadjah Mada University.
2. A total of 62,553 tree seedlings have been planted in 8 out of 20 target villages, in order to boost the carbon stock in private forests, village forests, community forests, and community plantation forests.
3. Forest Management Plans for village forests, community forests, and community plantation forests have been developed and also the forest management in project sites have been assessed.
4. Temporary data on villages' profile have been developed. Javlec has facilitated assessments for village spatial planning in the following six villages: Kedung Poh village, Kepek village, Pacarejo village, Putat village, Banyusoca village, Purwodadi village.

Karst area of Gunungkidul to be planted by fruit tree seedlings by Javlec.

LAND-BASED MITIGATION

05.

Program's Name
Nipah Ecosystem Conservation and Eastern Buffer Zone of Lamandau River Wildlife Reserve as Community Forest (HKm)

Implementing Partner
Yayasan Orangutan Indonesia (Yayorin)

Budget
IDR 2,576,720,000

Implementation Period
24 month
(April 2016 - March 2018)

Location
West Kotawaringin District, Central Kalimantan Province

Survey for nipah plants as one of brown sugar ingredient in Buffer Zone Lamandau river.

Box of fresh water fish for support alternative livelihood for community of Tanjung Putri Village, Central Kalimantan.

Developing of permanent farming field to avoid slash and burn farming with onion commodity.

Backgrounds

The importance of local community's involvement in the effort of Lamandau River Wildlife Reserve's buffer zone protection, which consists of 200 hectares of *nipah* and mangrove forest as well as 2,000 hectares of buffer zone, emission reduction, and revenue improvement.

Achieved Progress

1. Forest conservation by planting "*jelutung*" trees and other plants. The communities have tried planting vegetables and fruit plants in their farming lands. There has not been any land burning conducted in farming activities in Tanjung Putri Village since it is made unlawful by local government through its local PERDA (local regulation).
2. *Nipah* ecosystem and forest conservation have been supported through the issuance of village regulation, Regent's Decree on buffer zones as community forest (HKm) has been issued, and Nipah ecosystem and forest area have been mapped. The Head of West Kotawaringin District as the head of the local government has supported this program by issuing recommendation of creating community forest (HKm) to the Ministry of Environment and Forestry. In addition, fire-watch groups have been formed in 2 villages.
3. Improving economy and food security through low-emission farming and fishing business management have been carried out by:
   - Constructing a total of 2,500^2 meters demonstration plots to pilot fire-free farmlands in Tanjung Putri Village.
   - Building a total of 10 keramba (fish cultivation site) and appointment of their chief managers by SEPAKAT HKm group.
4. Improving knowledge of the community in Tanjung Putri Village about the benefits of conserving forests and the impact of climate change. Socialization meeting has been conducted on May 20th 2016 and attended by 100 community members and related agencies. Mentoring and monitoring of community forest (HKm) groups of Tanjung Putri Village has been conducted regulary (7 times a month).

Permanent field with chili commodity farming model to avoid slash and burn.

LAND-BASED MITIGATION

06.

Program's Name
Conservation and Rehabilitation of Amanah Lestari Peat Swamp Forest as a Working Classroom for Universitas Muhammadiyah Palangkaraya

Implementing Partner
University of Muhammadiyah Palangkaraya

Budget
IDR 2,419,987,500

Implementation Period
24 months
(April 2016 - March 2018)

Locations
South Barito District and
East Barito District,
Central Kalimantan Province

Preparation of silvofishery demplot in the area of PT PT. Hutan Amanah Lestari Km 14 Adaro Road.

Preparation of hydroponic growing media for varieties of rice and water spinach.

Measuring the depth of peatland.

Backgrounds

The importance of rehabilitating and managing 25,804 hectares of concession forest owned by PT. Hutan Amanah Lestari which covers 3 villages within its concession area and is a peatland with more than 2 meters depth, and is fire-prone due to slash and burn techniques for farming purposes, emission reduction, and revenue improvement.

Objectives

Better management of its 25,804 hectares with the 4 villages within by PT. Hutan Amanah Lestari; bekantan primate species (Nasalis larvatus) breeding area; reduction of critical land; raising communities' awareness on climate change; well-developed forest for training and research purposes; 100,000 new trees planted, and buffer zone mitigations around the national park area.

Achieved Progress

1. Innovative solutions for rehabilitation and reforestation efforts of degraded or previously burned peatland have been implemented.
    - Land coverage maps from Landsat imagery have been received in 2015, land coverage data and aerial pictures taken by a drone, and 2 trap cameras have been installed.
    - Field survey on fauna inventory was conducted in June 27th – July 1st 2016, 100 orangutans were identified.
    - Trainings on administration and finance, hydroponic farming, and fish cultivation with *beje* system in 2 pilot ponds have been held, as well as 1.5 hectares of land has been planted with local trees.
2. Fire prevention system and peatland hydrology control observation have been installed in order to achieve data on fire-prone areas and fast response reports on fire hotspots, through email confirmations from Global Forest Watch. *Serbu Api* team has been formed and canal mapping surveys using drones have been carried out.
3. Field studi on greenhouse gas emission and biodiversity
    - Students visit to project sites was undertaken in June 27th – July 1st 2016.
    - Students participated in the establishment of plot for seedling stakes, and poles of various plantation.
4. Trainings on the development of non-timber forest products (HHBK) have been completed. The type of HHBK developed are *purun*, hydroponics, and *beje*.

Training of beje system cultivation for the community groups.

Mapping of land cover based on aerial photographs (drone).

LAND-BASED MITIGATION

07.

Program's Name
Land and Forest Rehabilitation through Development of Community Forest (HKm) in Improving Moyo Watershed Capacity

Implementing Partner
Lembaga Olah Hidup (LOH)

Budget
IDR 1,002,270,000

Implementing Period
24 months
(April 2016 - March 2018)

Location
Sumbawa District,
West Nusa Tenggara Province

Nursery area in Bale Brang Village, Sub-district Utan, Sumbawa sub-district.

The community prepare seeds that ready for planting in sorrounding areas of DAS Moyo.

Backgrounds

The importance of community forest management through the involvement of 710 families of Lito village located in Moyo watershed 2,418 hectares catchment area, protecting 3 sub-districts from the threat of erosion and flooding in rainy season, and drought in dry season, emission reduction, and revenue improvement.

Objectives

Well-developed ecological models governance in order to increase land/ forest capacity to add new and sustainable source of income for the community.

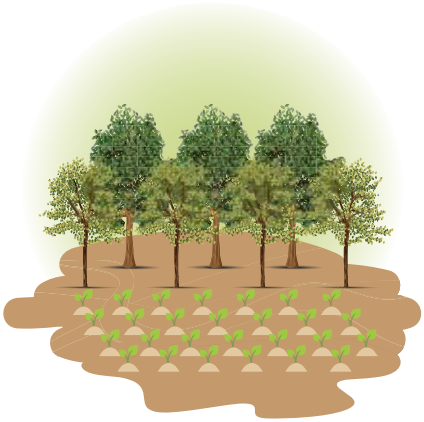
Achieved Progress

1. Improvement on community's organizational capacity has been achieved through a training on agroforestry and the implementation community forest (HKm) . This training was held on May 28th – 29th 2016 and approximately 32 participants (35%) have shared their knowledge to others.
2. There has been some efforts undertaken to recover a total of 100 ha of land and forest within the critical watershed every year by planting at least 10 local species of plants.
   - Planted timber and crops within the area of 40 hectares, divided into 5 groups.
   - Conducted monthly evaluation of activities on community forest (HKm) by the member of community forest groups. There are lessons to be learned from the program implementation that later on to be shared to the relevant stakeholders & public.
   - Completed surveys on determining rehabilitation sites.
3. Completed production of a documentary film.

The areas of DAS Moyo that will be planted by varieties of seeds.

LAND-BASED MITIGATION

08.



Program's Name
Preservation, Rehabilitation, and Conservation of the Forestry Science Academy (HP-STIK) Educational Forest

Implementing Partner
Yayasan Teungku Chik Pante Kulu
Sekolah Tinggi Ilmu Kehutanan
(the Forestry Academy)

Budget
IDR 3,488,079,500

Periode Pelaksanaan
24 months
(April 2016 - March 2018)

Location
Aceh Besar District,
Aceh Province

Construction of working space.

The community members clear the nursery area.

The community members install wood bars for nursery areas.

Backgrounds

The importance of protecting STIK educational forest, supported by the Ministry of Forestry Decree No. SK. 724/ MENHUT-II/2009, particularly aims to reduce greenhouse gas emissions, and recovery of the Sumatran tiger (Pantera tigris sumatrae) and Orangutan (Pongo abelii) contribute to emissions reduction.

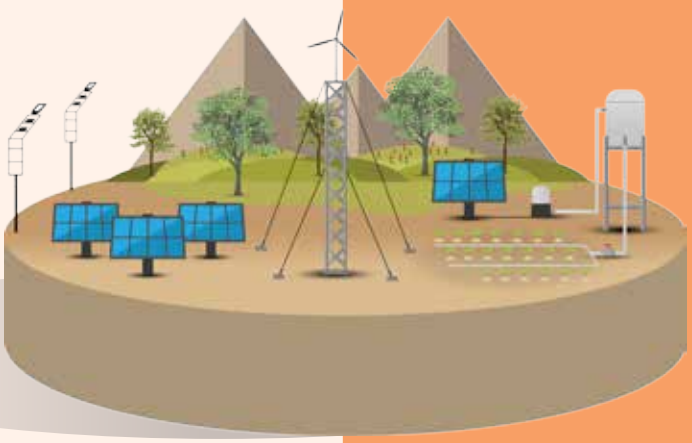
Objectives

A better forest management for training and research purposes, assigned by the Ministry of Forestry Decree No. SK. 724/MENHUT-II/2009 about reduction of critical land; raising communities' awareness on climate change; a forest for training and research purposes that is in a good condition; and to have 100,000 newly planted trees.

Achieved Progress

1. A study on forestry conflicts analysis has been completed and presented in socialization meeting on May 16th 2016 and in FGD on June 26th 2016.
2. Tree planting site has been cleared since May 9th 2016 and tree seedlings from 18 different local species have been purchased since November 2016 from another region through partners that possess seedling procurement license.
3. Materials needed for the construction of cultivation facilities have been procured, and the construction has been ongoing since June 23rd 2016.

Instalation canopy in a nursery area.

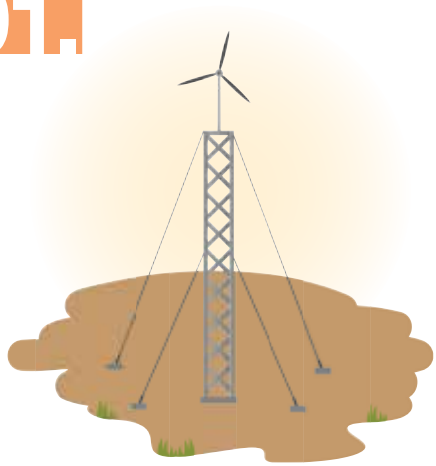


3
ENERGY
PROGRAMS

1. RCCC UI, TREC, PT Potenza Putra Makara, LPU An naba
2. *Yayasan Energi Bersih Indonesia* (EnerBi)
3. *Lembaga Pengabdian Masyarakat* (LPM) University of Mataram

ENERGY

01.



Program's Name
Utilization of Wind Power as New and Renewable Energy to Generate Electricity in Bungin Village and Its Impact on the Environment

Implementing Partner
Research Center For Climate Change (RCCC) UI, Tropical Renewable Energy Center (TREC) FTUI, PT Potenza Putra Makara, *Lembaga Pemberdayaan Umat* (LPU) An Naba'

Budget
IDR 749,882,000

Implementation Period
8 months
(April 2016 - November 2016)

Location
Bekasi District, West Java Province

The three wind turbines that could generate maximum 3 kWe are installed in Kampung Bungin.

The water desalination system of salt water into drinking fresh water.

Building that will serve as Micro, Small and Medium Enterprise (MSME) in Kampung Bungin.

Backgrounds

The low figures of new and renewable energy production in Indonesia motivated the RCCC-UI team to commence development on one of the new and renewable energy sources, which the wind power. Indonesia has a great potential in harvesting wind power due to its massive coastlines. Muara Bungin Village in Muara Gembong District, Bekasi District sits on the riverbanks of the frequently flooded Citarum River. Most of the residents work as fishermen due to its proximity to the ocean. The communities have to live with little access to clean water, and the abrasive waves that possesses imminent threat to their environment. This program was aimed to mitigate those mentioned problems. Therefore, the communities are expected to be self-reliant and self-sufficient on their energy needs and in supporting their socio-economic sectors in their daily lives.

Objectives

This program aimed to develop alternative electricity sources through harvesting wind power by using wind turbine system, and is integrated with ready to drink fresh water supply by using salt water desalination process, along with assisting the development of local Micro, Small and Medium Enterprises (MSMEs) that produce processed marine products, and mangrove seedlings that are used to restore the coastline and estuary.

Achieved Progress

Communities of Bungin Village, a remote village that sits on the riverbanks of the frequently flooded Citarum River estuary, live a secluded life despite of its close proximity to the country's capital, due to the poor access. Significant abrasion and beach erosion still takes place. Around 59.5 hectares of beach in 7 coastal areas in Bekasi District was damaged in 2015. Furthermore, Bungin Village experiences a constant electricity supply disruption and has no access to fresh water supplies. In response to those mentioned problems, an Integrated Fresh Water Supply System has been made; 3 wind turbines have been built, each produces as much as 3kWe; and salt water to ready-to-drink fresh water desalination system has been built.

A Local Technology Education Center and Coastal Communities Empowerment facility has been built in order to empower and educate the communities, as a field laboratory, and created a cooperative system to manage MSMEs.

Micro, Small and Medium Enterprise (MSME) and wind turbines are situated in Kampung Bungin.

ENERGY

02.

Program's Name
Solar-Powered Water Removal System Scaling-Up in Banyumeneng II Community, Panggang District, Gunungkidul District, Special Region of Yogyakarta

Implementing Partner
Yayasan Energi Bersih Indonesia (EnerBI)

Budget
IDR 749,000,000

Implementation Period
8 months
(April 2016 - November 2016)

Location
Banyumeneng II Community, Giriharjo Village, Panggang District, Gunungkidul District, Special Region of Yogyakarta

Pump house that drains water from source to reservoir in Padukuhan Banyumeneng II.

Water sources in sub-village of Banyumeng, Gunungkidul Disrict.

Solar cell being installed to pump water in sub-village of Banyumeneng II, Gunungkidul District, Yogyakarta.

Backgrounds

Banyumeneng Community, Giriharjo Village, in Panggang District is one of many areas in Gunungkidul District that experience water shortage. Its topography is mainly karsts. Majority of the populations are farmers and laborers. The residential areas are covered by electricity access, but the water sources aren't, which makes it impossible for the community members to pump the water to the residential areas. Forty households do not have access to water sources (in emergency conditions). This proposal was meant to be the continuation of water fulfillment program in Banyumeneng Community.

Achieved Progress

1. A 4,000 Wp solar panel has been installed, which reduces the usage of fossil fuels used to run the diesel-powered generators, which pumps water from the water sources to the residential areas. This solar panel has also become an education site for the communities to learn about renewable energy system in their village.
2. A submersible pump, pipes, and reservoir have been installed to distribute water to 40 households that do not have access to water, each with the discharge of 20 m^3 per day.
3. Banyumeneng II Community Clean Water (*Air Bersih Masyarakat* Banyumeneng II / ABIMANYU) organizational capacity improvement, water management is directly controlled by the communities. ABIMANYU helps to manage and maintain the technical issues, documents, and the financial issues of the solar powered water removal system.
4. Streetlights have been installed in village's public facilities.

The outcomes of this projects positively and significantly improve the lives of the communities, namely:

1. Residents are no longer burdened and required to pay a monthly fee of IDR 600,000, or IDR 150,000 per 2,000 liters of water to enjoy clean water.
2. Community members do not have to walk for around 2 km to retrieve clean water, since it is now brought to the distribution tanks in their village.
3. Money and time used for the struggle in accessing clean water can now be used for other beneficial activities, e.g. farming.

The positive outcomes of this project directly impacts 40 households, or around 160 people who now enjoy access to clean water.

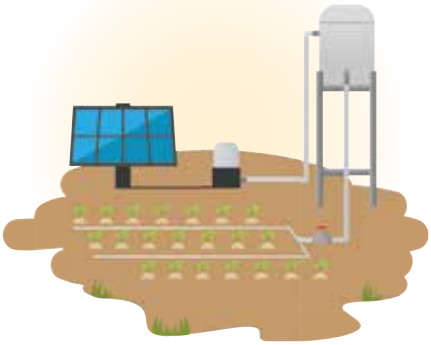
The most significant change caused by this project is the fulfillment of the need for clean water in Banyumeneng II Community, Giriharjo Village, Panggang Sub-District, Gunungkidul District. Prior to the implementation of this project, families used to live with water shortages, and had to pay a lot of money for water delivered by water tank trucks. This happened due to the poor performance of the local water company, which caused majority of the people in Banyumeneng II Community left uncovered by the water company coverage.

This program was completed in less than a year, and received support from:

1. The community members of Banyumeneng II who were very enthusiastic about this program. This enthusiasm was shown through their commitment in participating in mutual cooperation at every occasions.
2. Clean Water Management Unit of the Department of Public Works also took part and supported this project by granting 2 water distribution tanks, thus making the water distribution coverage more even.
3. Forestry Department of Yogyakarta Province, took part by relaxing the regulations and bureaucracies in issuing the land permit for the project site.

ENERGY

03.



Program's Name
Strengthening Productivity of Community Plantation and Ranch in Drylands using Dripping Irrigation Based on Solar-Cell Energy

Implementing Partner
Lembaga Pengabdian Masyarakat (LPM), University of Mataram

Budget
IDR 750,000,000

Implementation Period
8 months
(April 2016 - November 2016)

Location
North Lombok District,
West Nusa Tenggara Province

The main water tank that could acccomodate water up to 12 m^3 is installed in sub-village Tampes Kayangan Village.

Drips irigation channel to support the demonstration plot (demplot) that planted with Papaya "California" and Chili "Dewata".

Water pumping system using solar cell for "irigasi tetes".

Backgrounds

Most of the drylands in Northern Lombok has rivers that run along sheer canyons, which caused most of the water coming from springs on Mount Rinjani flows right to the ocean, and not utilized for plantation and husbandry needs.

The obstacle faced by local communities is the expensive dryland irrigation system installation. Most of the remote areas are not covered by electricity as the power source to pump water up to the plantations. Moreover, the high cost of farm operation does not help either. At least five to six liters of gasoline is required to irrigate 10 hectares of plantation. Therefore, local communities need a cheaper alternative of irrigation system using water pumps.

This program was aimed to reduce fossil fuel usage by harvesting solar energy to be used in powering the irrigation system. This plantations and husbandries capacity improvement was expected to help improving communities' quality of life as well as environment quality as a carbon emission reduction based integrated plantations and husbandries area.

Objectives

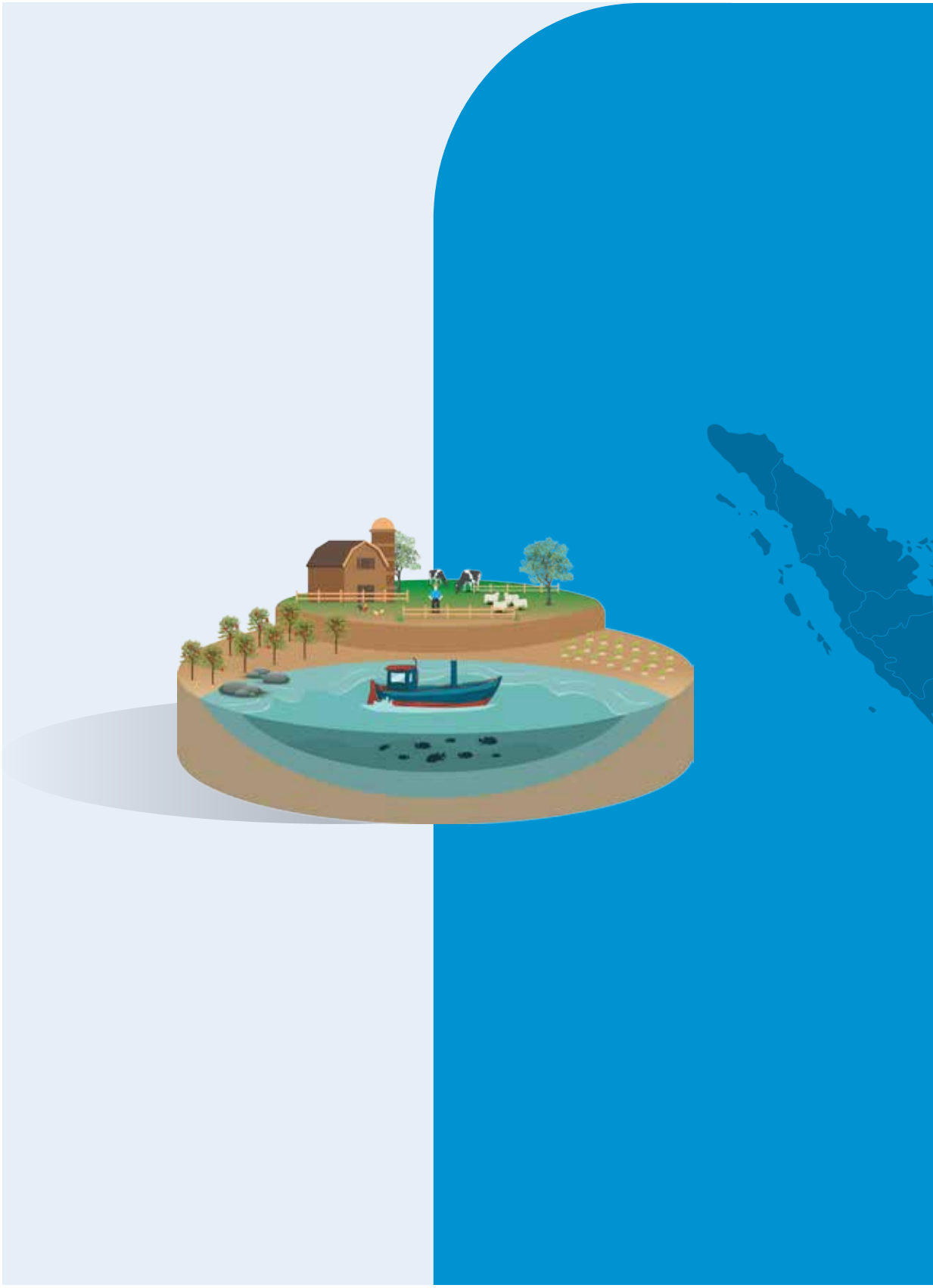
This program aimed to tackle some problems at the project site, namely: (a) reducing fossil fuel usage by harvesting solar energy with solar cell (PV) technology in irrigating the drylands; (b) increasing local communities' revenue through plantations and husbandries productivity improvement; (c) replacing the habit of using chemical fertilizers to organic fertilizers (solid/liquid); through a series of activities, such as:

1. Installation of solar-powered water removal system
2. Installation of a 12 m^3 water tower and a 4 – 5 hectare drip irrigation piping system, as well as installation of three 1,200 liter water tanks along with the piping system
3. Creation of a 1 hectare demonstration plot planted with Californian papaya and Dewata chilli
4. Establishment of a cooperative and its capital

Achieved Progress

The outcome of this program is utilization of 2,400 Wp renewable energy generated from solar-cells as the energy source to power water pumps, capable of pumping 92m3 of water every day. The pumped water is used to irrigate 4 – 5 hectares of land using piping irrigation system, along with the 1 hectare demonstration plot which improved the dryland productivity, turning it into an integrated plantation area

In the long term, this program could also improve the environment quality and community welfare by building a rural water security mechanism, which would improve community and dryland productivity as well as turning the drylands into a household-scale plantations and husbandries area.



7

ADAPTATION & RESILIENCE
PROGRAMS

1. *Yayasan Lingkungan Hidup Seloliman* (YLHS)
2. University of Gadjah Mada (UGM)
3. *Yayasan Transformasi Kebijakan Publik Indonesia*
4. YAKKUM Emergency Unit (YEU)
5. FMIPA IPB
6. Climate Change Center, Bandung Institute of Technology (ITB)
7. *Pusat Kajian Antropologi UI*

ADAPTATION
& RESILIENCE

01.

Program's Name
Water Sources Conservation in Dieng Mountainsides Northern Block, Batang District as Climate Change Mitigation and Adaptation Actions

Implementing Partner
Seloliman Foundation for the Environment/*Yayasan Lingkungan Hidup Seloliman* (YLHS)

Budget
IDR 1,000,000,000

Impelementation Period
24 months
(April 2016 - June 2017)

Location
Batang District,
Central Java Province

Water catchment wells constructed in the recharge area of Bismo spring with dimensions of 1 meter diameter and 3 meters depth.

Backgrounds

The importance to fulfill the needs for clean water in local communities through fulfillment by Batang District Water Company, which relies on Bismo springs. The Bismo springs is influenced by catchment areas in two villages; Bismo village and Keteleng village. Increasing the water infiltration level is necessary, and it could be done by adding more infiltration wells, which also increases the carbon stock.

Achieved Progress

1. Project site assessment has been completed. Under normal circumstances, the local water company produces 240 liters of water per second from Bismo springs for the community members of Batang District. Bismo springs water discharge rate has decreased at around 20 – 30%
2. Trainings on how to determine locations of catchment wells have been conducted, and 200 locations have been approved by landowners and *Kelompok Swadaya Masyarakat* (KSM).
3. Two-hundred catchment wells have been built in Bismo springs recharge area in Bismo village and Keteleng village, 100 catchment wells in each village.
4. Two-thousand trees have been planted in Keteleng village and Bismo village to help the water sources conservation efforts.
5. Local regulations on environmental governance in Keteleng village have been issued and socialized, together with KLHS, BLH, and Batang District Legal Bureau which indirectly helped the maintenance, management, and utilization of trees and catchment wells.
6. The establishment of a democratic KSM that represents the communities and village officials.

Village meeting to form self-help group for the conservation of water source in the North Block of Mt. Dieng slope in Keteleng Village, Batang, Central Java.

ADAPTATION
& RESILIENCE

02.

Program's Name
Climate Projection and SRI (System of Rice Intensifications) Paddy Cultivation Adaptation to Regional Climate Change using the Climate – Plant – Soil – Water Integration Model Approach in East Nusa Tenggara

Impelementing Partner
Agricultural and Bio-system Engineering Department,
School of Agricultural Technology,
University of Gadjah Mada

Budget
IDR 1,000,000,000

Implementation Period
24 months
(April 2016 - March 2016)

Location
East Nusa Tenggara Province

Demonstration plot of SRI rice cultivation in Baumata Village, Kupang District, NTT.

Plowing using tractor before planted by SRI rice.

Telemetry is used to monitor rainfall data in ICCTF's demplot, Baumata Village, NTT.

Backgrounds

The importance of adaptation to climate change that caused prolong dry season in East Nusa Tenggara Province. The adaptation program contains introduction to and research on adaptive paddy planting method (utilizing the limited supply of water for maximum productions), which is SRI (System Rice Intensification). Research result will be the reference of East Nusa Tenggara rice production planning, a part of the Middle-Term Regional Development Plan.

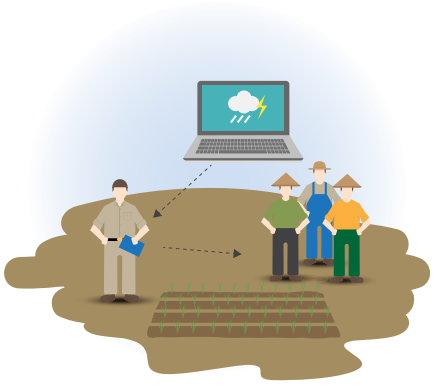
Achieved Progress

1. Study on the impacts of global climate indexes (SOI and SST) to agricultural productions in East Nusa Tenggara has been finalized. This study has been used to help the local agricultural security.
    - Socialization meeting on Climate Projection and SRI (System of Rice Intensifications) Paddy Cultivation Adaptation to Regional Climate Change using the Climate – Plant – Soil – Water Integration Model Approach in East Nusa Tenggara have been conducted to the local government and local farmers.
    - Demonstration plot locations in Baumata Village and Tarus sub-district have been selected, and paddy seedlings have been planted in 2 demonstration plot sites using the implementation of SRI (System of Rice Intensification) method.
    - Telemetric devices that monitor real-time climate and plant conditions have been installed, and data management dashboard is being developed.
2. Land productivity has been improved (ton/hectare) using the SRI (System of Rice Intensification) method.
    - Secondary data related to socio-economics of the two target villages is being collected. First harvest of paddies planted using SRI method gave a satisfying result.
    - As of the end of December 2016, paddy harvest from the demonstration plots gave a 20% better result than the conventional method.

Residents planted rice seeds that have been sown to SRI cultivation plots in Baumata Village, NTT.

ADAPTATION
& RESILIENCE

03.



Program's Name
Strengthening Local Government Organizational Capability to Integrate Climate Change Adaptation with the Local Development Plan

Implementing Partner
Yayasan Transformasi Kebijakan Publik Indonesia (YTKPI)/ Indonesian Public Policies Transformation Foundation

Budget
IDR 1,000,000,000

Implementation Period
12 months
(April 2016 - May 2017)

Location
Gorontalo City & Gorontalo District, Gorontalo Province

Explanation session during FGD on vulnerability analysis and adaptation strategies to the relevant local stakeholders in Gorontalo District.

Training session on vulnerability analysis and adaptation strategies for relevant local stakeholder in Gorontalo District.

Sharing session during FGD detailing vulnerability analysis and adaptation strategies in Gorontalo District.

Backgrounds

The importance provision of support for development planning involving several sectors related to climate change, which are included into the Regional Medium-Term Development Plan (RPJMD), considering Gorontalo has a high threat of flooding and drought. Gorontalo District has the largest drylands and has the highest drought index. The crop failure probability in Gorontalo District counts to as much as 50%. Gorontalo District is one of the 50 most vulnerable regencies in Indonesia.

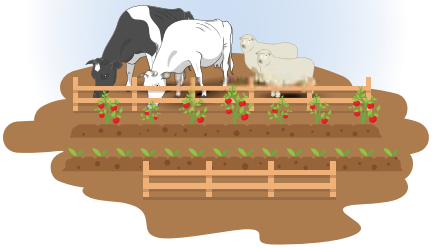
Achieved Progress

1. Data compilations on district vulnerability, local government capacity, and local initiatives have been completed.
2. The climate task force of Gorontalo District has been established, supported by the Regent's Decree.
3. Capacity Development Need Assessment analysis method has been composed as analysis materials. Vulnerability and risk data has been compiled through literature studies. A document detailing Quick assessment on Climate Disaster (vulnerability, risks, and adaptation options) in Gorontalo District documents has been developed as a reference of the Regional Mid-Term Development Plan.
4. Gorontalo District Regional Medium-Term Development Plan documents year of 2016 - 2021 has been ratified. Chapter on Strategies and Policy Directions on Climate Change Adaptation Strategy Recommendations have been included in the Regional Medium-Term Development Plan documents.
5. Gorontalo District development planning stage according to Climate Change Adaptation 2017 is realized by the Joint Plan 2017, contains 24 activities included in RENJA and RKA 2017. These activities will cost IDR 54,000,000,000 in total. Approximately 500,000,000 rupiah from the total cost will be funded by the Government of Gorontalo District taken from the 2017 local budget, which shows the local government's commitment in tackling climate change.

Meeting of the working group on climate change adaptation in Gorontalo District.

ADAPTATION
& RESILIENCE

04.



Program's Name
Supporting an Adaptive Food Security for Communities in Gunungkidul District, Special Region of Yogyakarta

Implementing Partner
YAKKUM Emergency Unit (YEU)

Budget
IDR 1,000,000,000

Implementation Period
24 months
(April 2016 - March 2018)

Location
Gunungkidul District,
Special Region of Yogyakarta

Location of water reservoirs "Telaga Makan" in Temon Village, Purwosari Sub-District.

Farmers in Temon Village Gunungkidul experience water shortages for irrigation of agricultural land due to river sedimentation and low capabilities to save water.

Backgrounds

The importance of organic agriculture development and husbandries that are resilience to climate change in Gunungkidul District, as well as rehabilitation of water catchment area. Local communities have experienced in decreasing their harvests, and it is caused by the drying lake in Purwosari District. This caused an increase of living expense, particularly in purchasing water.

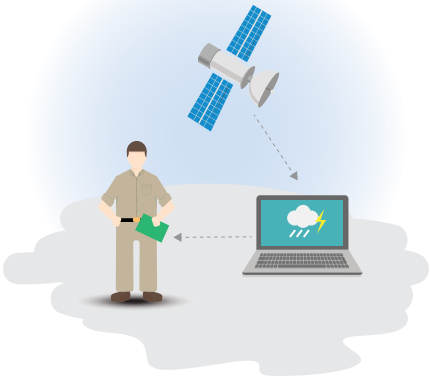
Achieved Progress

1. Completed surveys and analysis on food vulnerability rate, village capacity and vulnerability in facing disasters and impacts of climate change. Four villages have disaster risks mapping documents and four others have action plan documents on food security that is adaptive to climate change.
2. Completed a Makam Lake conservation plan that involve communities in eight neighborhoods in Temon. Lake has been conserved by planting and building infrastructure.
3. Agriculture that adaptive to climate change has been started with pilot activities on organic rice fields and rice seeds breeding in two villages, as well as trainings on organic fertilizer and organic cattle food making. After the trainings, three groups taking turn practiced making organic fertilizer using their own source through social gathering system "*arisan*". Each farming groups were willing to provide the ingredients of organic fertilizers such as cattle manure, dried leaves, and human resources, as well as self-reliantly helped the development of the making process.
4. As of December 2016, organic paddy planted in demonstration plots has grown well. One of the demonstration plots was ready to be harvested. The activity was continued with trainings on how to make an organic pesticide and its applications.

Residents sow rice seedlings in Purwosari Sub-District.

ADAPTATION
& RESILIENCE

05.



Program's Name
Strengthening Community's Resilience on Climate Change Based Climate Agriculture Management Strategy

Implementing Partner
Geophysics and Meteorology Department, School of Mathematics and Natural Sciences, Bogor Institute of Agriculture

Budget
IDR 995,000,000

Implementation Period
18 months
(April 2016 - October 2017)

Location
Subang District,
West Java Province

Socialization and preparation meeting on adaptation strategies in the agricultural sector involving local government (related agencies) and community representatives in Subang District.

Subang District meeting discussing the possibility of implementing adaptation strategies in the agricultural sector in local government-level of Subang District.

Rapid assessment related to the productivity of the agricultural sector to climate change impacts in Subang District.

Rapid assessment related to the productivity of the agricultural sector to climate change impacts in Subang District.

Kick-off meeting and Focus Group Discussion in Subang, West Java.

Backgrounds

The importance of developing climate change adaptation options related to agricultural activities, thus, Subang District is a perfect choice to pilot since it is one of the largest rice producer in West Java province, and it is prone to floods and drought due to climate change.

Achieved Progress

1. Subang District Climate Projection and Profile document has been drafted, based on the daily rainfall data gathered from NASA MIROC5 and CSIRO with 25 km resolution for Subang District area. Data related to climate and extreme climate related disasters, climate data projections based on RCP 4.5, rainfall and temperature projection map using different scenarios and climate projection information have also been collected.
2. The TIM IKLIM of Subang District has been established. The TIM IKLIM later will be legalized through the issuance of Subang District's Decree. The team aims to help prioritizing adaptation strategy in government policies and in the community.

ADAPTATION
& RESILIENCE

06.

Program's Name
Adaptation on Fisheries Towards Climate Change and Variability in Java South Coastal Area Based on Risk Assessment

Implementing Partner
Climate Change Center, Bandung Institute of Technology (ITB)

Budget
IDR 998,250,000

Implementation Period
15 months
(April 2016 - June 2017)

Location
Sukabumi District, West Java; Pangandaran dan Cilacap, Central Java; Banyuwangi, East Java

FGD "Capture Fisheries Adaptation to Climate Change in the South Coast of Java Island Based on Risk Assessment" in Pangandaran.

One of the fish auctions that became a pilot site of adaptation and resilience activities in West Java.

Backgrounds

Indonesian Fisheries Management Area (WPP-RI) 573 which lies from the southern coast of western Java to Nusa Tenggara has high potential impacts of climate change. This area requires an innovative capture system by involving the community, especially in fishing center such as in West Java (Sukabumi and Pangandaran), Central Java (Cilacap), and East Java (Banyuwangi).

Achieved Progress

1. Completed the development of document on climate projection and adaptation options associated with the affordability of capture fisheries sector on the dynamic fishing ground based on climate change risks profile.
2. Data and information collection has been performed through focus group discussions, surveys and workshops. In addition, data and information on basic science, hazards and vulnerabilities have been collected from 4 fishing ports (PPS Cilacap, PPN Pelabuhan Ratu, PPN Banyuwangi and PPI Pangandaran).
3. Adaptation strategies on fisheries have been developed based on the assessment, to increase the productivity of capture fisheries which is resilient to climate change.

FGD "Capture Fisheries Adaptation to Climate Change in the South Coast of Java Island Based on Risk Assessment" in Bandung.

ADAPTATION
& RESILIENCE

07.

Program's Name
Establishment of Regional Networks for a Rural Response to Climate Change with Farmers, Scientists, and Extensions

Implementing Partner
Center of Anthropology Studies, School of Social and Political Sciences, University of Indonesia

Budget
IDR 1,000,000,000

Implementation Period
24 months
(April 2016 - March 2018)

Locations
Indramayu District, West Java Province; East Lombok District, West Nusa Tenggara Province

"Centong" rain gauge used by farmers in East Lombok.

Recording of rainfall data in the morning between 6-7 am.

Socialization of rain fall measurement methods by KPCH of East Lombok, which was attended by the Regent.

Backgrounds

The importance of community involvement in observing and understanding climate change scientifically in order to strengthen local farmers' resilience and ability adapting with the climate change in East Lombok and Indramayu Districts. ToT Trainings for advanced farmers at Science Field Shops involve agriculture instructors and related institutions to speed up the absorption and spread of knowledge in target locations.

Achieved Progress

1. Promoting agriculture instructors, BP4K staffs, independent community instructors/facilitators and Daily Weather Watch Groups who serve as agents of change within the communities in order to help farmers in adapting to climate change.
    - Facilitated the improvement of agro-meteorology education in East Lombok and Indramayu Districts. Additional 120 farmers in both Indramayu and East Lombok that have learnt in the Science Field Shops through satellite clubs.
    - Completed trainings for instructors and guide farmers in Indramayu, East Lombok, and in other districts, and instructors and assistance for extension officer and facilitator.
    - Conducted two ToT trainings in Indramayu for Daily Weather Watch Group.
    - Completed two ToT trainings in Indramayu for guide farmers and BP4K instructors.
2. Replication of Science Field Shops (SFSs) through the formation of satellite clubs in other regions in and or outside of Indramayu and East Lombok Districts.
    - A new satellite club in Pranggong Village, Indramayu District has been formed.
    - Eight new satellite clubs in three different districts in East Lombok District were established.
3. Integration of Science Field Shops (SFSs) into local government policies.
    - Conducted a workshop on July 14th 2016 in Indramayu, involving University of Indonesia, Indonesian Daily Weather Watch Group, and BKP3. This workshop was later succeeded by a ToT training in November 2016.
    - Partnerships with BP4K in East Lombok District through formal commitment in commencing ToT that involves instructors in East Lombok District.
4. The result of Science Field Shops (SFSs) activities have been disseminated to wider farming communities, relevants institutions, and stakeholders.
    - Four articles have been submitted to international conferences (two were presented in London in May 2016), 2 papers to international compendiums, three articles to Inside Indonesia, and one article to ASEAS Journal.
    - One coverage in "Farming Metters" magazine on ToT trainings in East Lombok District, and was also reported by *Corong Rakyat* newspaper, as well as a local TV channel.
    - Publications on Science Fieldshops website and INSAM.

OTHER PROGRAMS

In 2016, ICCTF has done a series of activities funded by USAID and UKCCU.

USAID

01.
Proposal selection process and nominating successful proposals to be funded by ICCTF.

02.
Induction workshop on Project Management was held on April 6th- 9th at Aryaduta Hotel Jakarta. This four-day workshop aimed to (a) gain understanding on ICCTF Program Implementation Guidelines; (b) understand activities implementation mechanism that is in accordance with the Government of Indonesia's budget rules, and it applies to fairness level and detailed expenditures, to ensure a precise and accountable utilization of resources in order to reach the objectives; (c) exchange and share knowledge, experience, and learning from each other activities.

03.
Supervising and coaching to the 15 implementing partners aim to monitor the progress of the projects as well as fund disbursement.

UKCCU

01.
Participated proposal presentation for UKKCU support fund on January 7th 2016. This is the third presentation that ICCTF has conducted for UKKCU. Some recommendations have been delivered by the UKKCU, in regards to improvement of the proposal.

02.
Participated in Indonesia-UKKCU bilateral meetings on January 27th 2016 with the agenda Signing Umbrella Agreement between the Government of Indonesia and the Government of the United Kingdom.

03.
Participated in One HMG Partners Coherence Mapping Workshop organized by the Embassy of the United Kingdom on January 28th 2016.

04.
Participating due dilligence activities performed by UKCCU by providing informations on governance, internal compliance, dan regulation.

05.
MoU signing between ICCTF and UKKCU on April 5th 2016.

06.
Stakeholder and Scoping Analysis with various stakeholders (BRG, KLHK, NGOs, etc.) to gain information on peatland management in Indonesia.

07.
Revised and synchronized Logical Framework and UKKCU Project Budgeting.

08.
Conducted a number of coordination meetings to create synergies programming.

09.
Facilitated ICCTF – UKCCU Second Programme Meeting on May 11th 2016.

10.
Facilitated second technical program management to discuss details on programs and preparations for the inception phase on May 18th 2016.

11.
Called for "Forest and Peatland Governance to Reduce Emission in Indonesia through Local Activities" proposals in September – October 2016.

12.
Selection proposals and nominating the successful proposals to be funded by ICCTF-UKCCU.

SUPPORT FROM THE ROYAL DANISH EMBASSY (DANIDA)

In 2015 - 2016 the Royal Danish Embassy through DANIDA has provided financial support to ICCTF under agreement called "Environmental Support Programme (ESP3) to Indonesia Climate Change Trust Fund (ICCTF) ". Until 2016 the total funding received by ICCTF amounted to DKK. 1,500,000.

Billund Biorefinery. This facility to process organic waste from households and industries into biogas which can be used to generate electricity and heat. Billund Biorefinery, which is owned by the local government, using the new technology in which waste is heated to 160 degrees C and a pressure of 10 bar. This process produces a more efficient biogas and leave a little mud compared to conventional technology.

DANIDA

DANIDA's support to ICCTF covered some activities, such as:

01.
ICCTF Thematic Window Development.

02.
ICCTF Public Relations & Communication.

03.
Support for Climate Change activities in Indonesia.

04.
Capacity Building Development Programme.

05.
Monitoring and Evaluation of ICCTF programs.

06.
Operational Support of ICCTF Secretariat.

DANIDA is a faithful donor ICCTF, even since the establishment of ICCTF. From the beginning of ICCTF, Danida is always committed to the ICCTF's capacity improvement to manage the trust fund. Related to this, DANIDA sponsored a biomass study visit to Denmark in September 2016. The purpose of the study tour is to present the Indonesian delegation to Danish biomass solutions for sustainable energy and how they can be used to create cleaner energy in Indonesia.

Many high-rank officials and businessmen also joined the visit, like from Ministry of National Development Planning (Bappenas), Ministry of Environment and Forestry, Ministry of Energy and Mineral Resources, Provincial Development Planning (Bappeda), Jakarta Provincial government, PT Perhutani, PT Adaro, PT Holchim Cement and ICCTF, represented by ICCTF Programme Director.

The Indonesian delegation visited some of the Danish companies offering sustainable energy solutions through the use of biomass, located in many cities like Assens, Holstebro, Herning, Skaerbaek, Maabjerg, Aarhus and Billund. It also showed the strong commitment of Denmark on renewable energy. Denmark itself has committed to replace fossil fuels by 100 percent renewable energy by 2035, while by 2050, all targeted Danish energy should be changed into clean, safe and renewable. Denmark has also committed to reduce greenhouse gas emissions in the country by 40 percent by 2020 compared with 1990 levels, without the use of carbon credits. This target is even counted 10 years ahead of the proposed EU target.

PROGRAM CYCLES

ICCTF Program Cycles (Preparation, Coordination, and Consultation)

In 2016, ICCTF has conducted several consultation meetings by inviting stakeholders in the Ministry of National Development Planning, National Development Planning Agency, National Public Procurement Agency (LKPP), and the Ministry of Finance in order to prepare ICCTF programs implementation. Progresses that were achieved during this preparation are as follows:

- Discussions on grant registration to DIPA Bappenas procedures.
- Discussions on the Ministry of National Development Planning/ National Development Planning Agency regulation draft input for internationally funded activities.
- Finalization of draft addendum on ICCTF Fund Manager/ *Pengelola Dana Amanat*.
- Discussions on the Action Plans RAN-GRK and RAN-API secretariats budget.
- Lessons Learned on meeting with topic from USAID Adapt Asia support to ICCTF.
- Finalization of ICCTF self-managed implementation guidelines.
- Discussions on ICCTF Small-Grant Programs Implementation Guidelines , that are grant funded and do not use the state budget.
- PMK socializations No. 111/PMK. 06/2016 on July 12th 2016 about procedures for State-Owned Assets Handover (BAST) on August 5th 2016.
- Meeting on Administration BAST's to NGOs/ local government, that are funded by direct grants from ICCTF and International Donor Sources on November 1st 2016.

Hand Over Report on State Owned Assets/*Berita Acara Serah Terima Barang Milik Negara* (BAST BMN)

As the 2015 ICCTF Small-Grant Programs had come to an end, which were implemented by PILAR, Konphalindo, and Bogor Institute of Agriculture, ICCTF BMN Team has visited the project sites to check and analyze state owned assets (BMN) on September 19th 2016 in Jagakarsa, South Jakarta; on September 21st – 23rd in Deli Serdang, North Sumatra; and on September 21st – 24th in Cidolog, Sukabumi, West Java. All examined state owned assets (BMN) were in accordance to the administrative and physical data.

ICCTF held several meetings in 2016, discussing BAST BMN, some of them are:

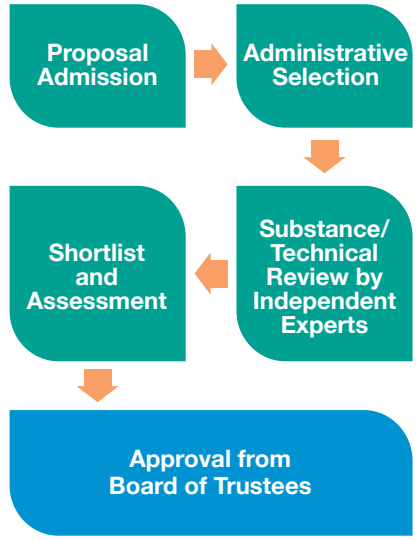
a. Discussions on Grant Draft Concept and BAST BMN.
b. Signing of draft for grant and BAST BMN.
c. Meeting on temporary custody of state property (BMN).
d. Meeting to discuss on Decree (SK) for *Tim Hibah* BMN ICCTF 2016.

In December 2016, ICCTF also conducted assessment of BMN for ICCTF's project in cooperation with RCCC UI, Energi Bersih Indonesia (EnerBI) and LPPM Mataram University, which will be handed over to community groups as the beneficiaries of the program.

ICCTF Proposals Selection Processes

ICCTF conducted proposal selection processes twice in 2016 in order to channel national and international grants. The first batch of proposals selection using the USAID and the state budget (APBN) for 2016 – 2018 fiscal year. On the other hand, proposals selected in the second batch using the UKCCU fund for 2016 – 2018 fiscal year and from the USAID for 2016 – 2017 fiscal year.

The selection processes are as follows:



a. **Proposal Pipeline Stage**
   During this stage, ICCTF clusters admitted proposals into each focus area and sub topics.
b. **Administrative Selection Stage**
   During this stage, ICCTF selected proposed proposals by NGOs, Universities, Research Organizations, or Non-Governmental Research that have the potential to be proponent programs.

c. **Substance/Technical Review by Independent Experts**
The Independent Experts in this stage, assess proposals that meet the administrative requirements.
A medium shortlist for each focus area is made based on the pre-assigned assessment criteria.

d. **Discussions on Shortlist Stage**
In this stage, the ICCTF facilitates panel discussions to decide proposals shortlist for each focus areas from the previously made medium-list, which will later be submitted to ICCTF Board of Trustees. The last stage of proposal selection process is the approval from ICCTF Board of Trustees. Each member of the trustees is given a proposal shortlist, and each proposal will be given recommendations by the Board of Trustees, and they will later be approved and be funded for each focus area. ICCTF Board of Trustees consists of representatives from donors (USAID, UKCCU, DANIDA, Germany), representatives from CSOs/NGOs, Private Sectors, and Indonesian Government.

Summary of number of proposals selected from accepted status, medium shortlist, shortlisted until funded status can be presented in the matrix below:

	Proposal Received			Medium Short-list			Short-list			Amount Funded Proposal		
Proposal Selection ICCTF I (USAID & State Budget)	139	72	155	41	19	15	15	10	13	8	3	7
Proposal Selection ICCTF II (USAID)	169	0	117	46	0	30	24	0	15	12	0	4
Proposal Selection ICCTF II (UKCCU)	50	0	0	42	0	0	15	0	0	11	0	0
TOTAL	**358**	**72**	**272**	**129**	**19**	**45**	**54**	**10**	**28**	**31**	**3**	**11**

Land-based Mitigation Energy Adaptation & Resilience

Project Management Briefing Workshop

This workshop was attended by 80 participants which include implementing partners of ICCTF 2016 programs, ICCTF secretariat staffs, and related units in the National Development Planning Agency, such as the Legal Bureau, Verification Department, Procurement Unit, and the ICCTF KPA Supporting Unit. This workshop was also attended by Fund Manager ICCTF, (Bank Mandiri). ICCTF also signed a partnership contract with 18 implementing partners on April 8th 2016. This signing was conducted by ICCTF's Commitment-Making Official (PPK) with representatives from the implementing partners, and was witnessed by the Director of Environment, ICCTF Secretariat, implementing partners, as well as other participants.

Monitoring and Project Evaluation

Assessment Activities

ICCTF has conducted field trips aimed to assess self-reliant programs in several implementing partner locations in March 2016. The assessment has the following objectives: (a) to assess legality and existence of the proposing organization; (b) to discuss with the proponents about their technical and administration preparedness in executing ICCTF programs; (c) to check the project sites. The assessment has been conducted in 5 out of 18 organizations that were selected to be funded by ICCTF. Four organizations located in Yogyakarta and Central Java, and one located in Sumbawa District, West Nusa Tenggara.

Monitoring and Financial Spot-check Program

ICCTF has conducted program monitoring activity for its 18 funded programs in 2016. Monitoring has been undertaken quaterly and was started in the middle of 2016, since the programs were started in April 2016.

Field monitoring was necessary to make sure that supporting data and data source are documented. It was also meant to identify weaknesses and gaps in achieving goals and objectives of the project. This data was necessary to the project executor and ICCTF secretariat.

As a part of internal control, ICCTF has also conducted financial spot-checks every three months, or prior to the next funding term in the 18 ICCTF funded projects. This was meant to review financial reports (fairness of expenditure and detailed checking on financial documents to ensure appropriate and accountable use of fund).

MAP LOCATION
ICCTF PROGRAMS 2016

Composition of ICCTF Focus Areas Development (Land-based Mitigation, Energy, and Adaptation and Resilience)

ICCTF has held FGDs to develop ICCTF Adaptation and Resilience to Climate Change project instruments on May 9th 2016. This activity was aimed to support the monitoring function in ICCTF as a climate change funding organization, in this case, the monitoring function was undertaken by the development of adaptation and resilience to climate change project instruments, in particular aimed to (a) promote time and funding efficiency related to the adaptation and resilience projects; (b) promote effective processes and results in adaptation and resilience through the adaptation and resilience projects; (c) develop an applicative and functional measurement related to the climate change adaptation and resilience projects.

ICCTF participated in several activities related to the development of the energy focus area, such as attending the Presidential Regulation No. 61/2011 Revision Workshop in Energy Sector, and also the Facilitating the Development of Monitoring, Evaluation, and Reporting (MER), and review on Regional Action Plan on Greenhouse Gas Emission Reduction.

ICCTF has also participated in Training on Streetlight Database Development for Energy Efficiency Planning at Atria Hotel Malang on March 22nd - 24th, 2016, which aimed to improve the streetlight management capacity through software development on streetlights information system. This activity was the continuation of a similar training that was held in Yogyakarta in March 2016, and was the continuation of the Smart Street Lighting Initiative (SSLI NAMAs) which has developed a geographic information system (GIS) on street lighting from ATMI-ICCTF Polytechnics Surakarta.

ICCTF participated in Information System on Public Street Lighting Software (Second Stage) from the EBTKE Directorate General in the Ministry of Energy and Mineral Resources, in partnerships with GIZ PAKLIM at The Phoenix Hotel Yogyakarta, which aimed to improve the management of street lighting capacity through information system software on public street lighting (second stage). This activity was the continuation of the similar trainings in Yogyakarta and Malang in March 2016. This training was held twice, as this was the continuation from previous trainings after regional representatives understood the software and gathered data from their regions. This training focused at GIS SliM Software materials that help in analyzing the economic calculation, energy consumption, and Lux metering of the streetlights.

DIALOUGE & PARTNERSHIP

Public Policies Dialouge/ Policy Coordination Forum (PCF)

In order to improve synergies among stakeholders in tackling the impacts of climate change, ICCTF organized a Policy Coordination Forum (PCF) at Bappenas in Jakarta, on August 24th, 2016. This PCF aimed to discuss the latest and most recent developments on the government policies in mitigating climate change, particularly the National and Regional Action Plan on Greenhouse Gas Emission Reduction and peatland restoration, as well as to identify possible windows for partnerships among stakeholders to improve the quality of programs related to climate change impact program.

This forum was attended by the Government of Indonesia development partners and representatives from Ministries/ Agencies, and was opened by Bambang Bodjonegoro, Minister of National Development Planning/ Head of National Development Planning Agency, and was attended by H.E Henrik Barkeling, the Embassy of the Germany Deputy Head of Mission. This forum was hosted by Gellwynn Jusuf, Deputy Minister of National Development Planning/ Head of National Development Planning, Department of Maritime Affairs and Natural Resources. This forum was also scheduled to hold the presentation from Budhi Wardhana, Deputy of Peatland Restoration Agency (BRG) on “Peatland Management Framework: Integration and Partnerships” as well as Tom Owen-Edmunds, head of the UKCCU on “International Contribution to Support the Implementation of Paris Agreement in Indonesia”.

Partnerships with the Peatland Restoration Agency (BRG)

ICCTF and BRG signed an MoU on Peatland Management Partnerships on Climate Change and Peatland Restoration Fund Management in Indonesia at Bappenas Tower in Jakarta, on October 6th 2016. Partnerships between ICCTF and BRG were aimed to implement strategic plans of both organizations in improving the efforts of recovering damaged peatland and preventing peatland fires. ICCTF and BRG both have targets on peatland management as climate change actions. With this partnership, peatland management programs was escalated to the national level and made them more effective and synergetic. Through UKCCU's fund, ICCTF committed to restore peatland amounting to 26,167 ha and reduce hotspots from 21,423 to 17,138.

Signing of MoU between ICCTF and Peat Restoration Agency in Bappenas Office.

ICCTF supports main program of Peat Restoration Agency in 4 peat restoration priorirty area:

01.
Pulang Pisau District, West Kalimantan (implemented by Center for Land Fire and Forest Rehabilitation, University of Palangka Raya.

02.
Musi Banyuasin District (implemented by Hutan Kita Institute - HAKI).

03.
OKI District, South Sumatera (implemented by Walhi Sumsel dan HAKI).

04.
Meranti Island District, Riau (implemented by Faculty of Fisheries and Marine Sciences, University of Riau).

ICCTF has co-funded the event of “The International Peatland Symposium – Towards National Scale Integrated Peatland Restoration Action "held on December 15th-16th 2016 at Hotel Borobudur, Jakarta. In this Symposium, all stakeholders, especially the government and the private sector presented the progress of their efforts and reaffirmed their commitment to restoration of peatland. As part of the symposium, a field visit was also conducted to Pulang Pisau district in Central Kalimantan province. President Joko Widodo and representatives of donor agencies participated in the visit, as well as ICCTF Program Director.

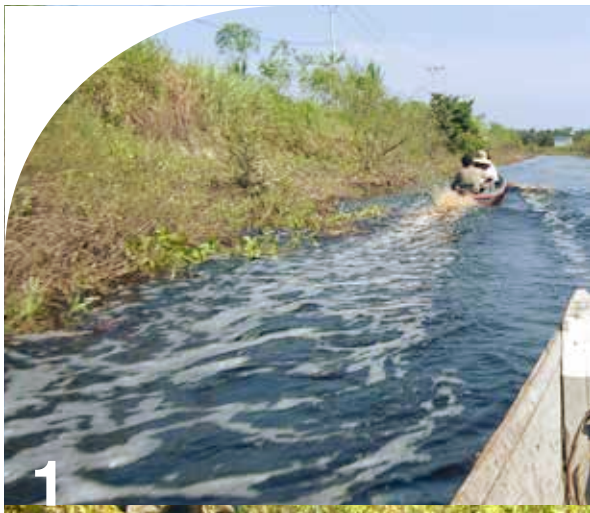


Photo captions:

1. The journey across the peatland in Pulang Pisau District.
2. Motorcycle engines used as water vacuum from drilled wells to help extinguishing peat fires.
3. Simple model of canal blocking in Pulang Pisau District, Central Kalimantan.

Partnerships with United Nations Development Program (UNDP)

Partnerships with UNDP have continued to improve in 2016 with ICCTF participation in several UNDP activities, namely:

- Coffee and Cacao Workshop in Maumere, Sikka District, East Nusa Tenggara on August 16th, 2016.
- Coordination meetings with Vice Head of District and Head of District Development Planning Agency of Sikka District, East Nusa Tenggara on proposal about "Coffee-Cacao for Green Climate Fund (GCF)" composition.
- Discussions on partnerships mechanism between UNDP and ICCTF as joint proposal development preparation, as well as assessments and workshops on potential commodity activities, particularly coffee and cacao in Flores Island.
- Organized a UNDP and ICCTF joint seminar with the theme of "Indonesia Coffee and Cacao Adaptation" on October 20th, 2016 aimed to receive recognitions from National Designated Authority (NDA).

Partnerships with GIZ INFIS

GIZ INFIS provided support to ICCTF to implement NAMAs based on the national climate change frameworks (RAN-GRK/ National Action Plan on Greenhouse Gas Emission Reduction) to reach the greenhouse gas emission reduction target through involvement of public and private funding.

Generally, INFIS programs support are grouped into 4 outcomes as follows:

1. Strengthening of ICCTF Institutional as a public funding organization mechanism to fund climate change mitigations (NAMAs) through creation of ICCTF Standard of Operations and Procedures on selection process, funding, and MRV that fulfill the Green Climate Fund (GCF) fiduciary standards.
2. Improving ICCTF capacity in order to implement public funding mechanism through implementation of good fiduciary and MRV standards.
3. Identification and synchronization of private funding mechanism concept to implement mitigation actions on climate change (NAMAs) in Indonesia.
4. Improvement of coordination between organizations and institutions in climate change mitigation actions funding (NAMAs) by combining public and private funding instruments.

GIZ INFIS has also supported ICCTF through ICCTF staffs capacity building, as well as organizational strengthening in addition to technical assistance. GIZ INFIS has also facilitated studies on ICCTF roadmap development and implementations of ICCTF fund channeling regulations.

GIZ INFIS has also support ICCTF to move quickly in facilitating institutional mechanism development, particularly in technical support on new regulations so ICCTF can function as a climate change funding organization effectively and capable of channeling funds to Line Ministries and other institutions.

In order to support ICCTF to be an institution that could receive funding from the Green Climate Fund (GCF), GIZ sponsored the attendance of ICCTF Program Director in South-South Knowledge Sharing Workshop on Approaches Towards


1


2

Strengthening Country-Wide and Sector Specific Strategies and Cooperation / Coordination Among Actors in Accessing the GCF and Climate Financing Overall, held on December 6th - 7th, 2016 in Manila, the Philippines.

The objectives of the workshop was to share knowledge on how to access the Green Climate Fund among participants coming from South and Central America as well as Asia-Pasific.

Partnerships with Human Resources Counseling and Empowerment, Ministry of Environment and Forestry

ICCTF and Extension Agency and Human Resource Development, Ministry of Environment and Forestry have explored potential cooperations forms aimed to improve human resources improvement in mitigation and adaptation efforts. This partnership is a sign of coordination improvement with another ministries and governmental agencies in supporting climate change mitigation.

Partnerships with GE-LAMA-I/GIZ

ICCTF continued coordination with GE-LAMA-I/GIZ for renewable energy and land mitigation programs in 2016. Several NAMA activities have been initiated, especially for Kalimantan Islands, particularly East Kalimantan Province in which GE-LAMA-I/WIZ has already had pipelining activities.

Photo captions:

1. Discussion of ICCTF's opportunities to coorporate with the Bank.
2. Finance officials and specialist from the Phillipines, Indonesia, Vietnam, Cambodia, Thailand, Bangladesh, India and Nepal gathered in Manila to accelerate funding access to international climate funds, in a follow-up climate negotiation meeting in Marrakech.
3. Discussion of Private Sector Involvement in Climate Change Financing, March 1st 2016.
4. FGD of Climate Change Mitigation Action in Energy Sector, October 2016.

COMMUNICATION & OUTREACH

The importance of public awareness in actively taking part in climate actions made ICCTF keeps on doing public communication activities aimed to raise climate change mitigation awareness and knowledge of the stakeholders.

Participation in UNFCCC COP22

One of the ICCTF Media Fellowship 2016 Winner, Vicharius Dian Jiwa Putra from Ahloo.com participated in the COP coverage in Makaresh, Morocco, on November 6th – 18th 2016. His participation aimed to give coverage on the activities and increase the participation of Indonesian Environment Journalists in international fora. In addition to attending COP22 Sessions, especially at Indonesia Pavilion and Indonesian Delegation media briefing, he also reported about the Global Landscapes Forum as well as made light features on COP22.

ICCTF Media Fellowship 2016

ICCTF Media Fellowship is a journalistic competition on climate change issues organized every year by ICCTF. This competition aims to encourage the spread of information about climate change mitigation as well as to increase media participation and quality on its information coverage. The committee received 63 proposals on climate change issues coverage from 52 teams/individuals. Five proposals were selected and received ICCTF fund to conduct news coverage and participated in the training organized by Dr. Soetomo Press Agency to refining their proposals into journalistic work.

ICCTF Media Fellowship 2016 was launched on May 25th 2016 which was done on the same day with the "Media Talks: 18 ICCTF Actions to Preserve Earth Temperature" discussion which introduced 18 ICCTF small grant programs to the media and public. Media training and mentoring (prize for the five winners) and jurying were done in partnerships with Dr. Soetomo Press Agency. Along with that, the best journalist was also sent to Morocco to do news coverage on UNFCCC COP22.

The jury chose Vicharius Dian Jiwa Putra Pamungkas, and Subkhan Agung Sulistyo from Ahloo.com with their in-depth and interesting journalistic work "The Bright Warrior Mothers from Eastern Indonesia" as ICCTF Media Fellowship 2016 winner. The other four teams that receive ICCTF Media Fellowship 2016 have also produced quality journalistic works from their proposals. They are Aries Munandar from Media Indonesia ("Keeping the Mandau Forest Sustainable"); Syaipul Bakhori from Tempo ("So the Birds Can Keep Singing in the Forest of Hope"); Hendry Roris P. Sianturi and Purnawan Setyo Adi from GATRA ("Cement Tires that Tackle Abrasion"); and Ramond Eka Putra Usman from Viva.co.id ("Taming the Peatland").

Donor and Media Visits

ICCTF organized a donor, media, and stakeholders visit on July 19th-20th at ICCTF adaptation project site, the Center for Anthropology Studies of the University of Indonesia in East Lombok, West Nusa Tenggara. This event was attended by representatives from ICCTF Board of Trustees, Prof. Jatna Supriatna, representatives from United Kingdom Climate Change Unit (UKCCU), Climate and Development Network (CDKN), Deutsche Gesellschaft fur Internationale Zusammenarbeit (GIZ), Fiscal Policies Agency Ministry of Finance, Ministry of National Development Planning/ National Development Planning Agency, as well as reporters from Antara, Media Indonesia, Republika, BeritaSatu, CNN Indonesia, Mongabay, and DAAI TV. This program was aimed to help farmers in increasing their ability in adapting to the climate change through trainings on how to measure rainfall, educating farmers with crop seasons, encouraging them to start planting different crops. After the team from Center for Anthropology Studies of the University of Indonesia came on board, farmers started to have better understandings and were no longer afraid of planting different crops with high economic values.

Media Talks

ICCTF has also organized routine media talks to keep a good relationship with journalists. "ICCTF Climate Change Mitigation Programs" media talks was held on June 24th 2016 in Jakarta to improve ICCTF relations with the media and donors as well as introducing them to the latest ICCTF programs, including the 18 programs for fiscal year 2016 - 2018, programs plan supported by UKCCU and ICCTF Media Fellowship 2016.

Participation in Climate Change Fora and Activities

a. Participated in "High-Level Forum on Implementing the Sustainable Development Goals in IDB Member Countries: Localizing SDGs in Indonesia" international; seminar at Jakarta Convention Center, Jakarta on May 17th 2016.
b. Participated in "Dialouge on Renewable Energy Financing" in Germany, March 6th – 14th 2016, funded by DANIDA.
c. ICCTF Secretariat, represented by the executive director participated in "First Green Win Dialouge" in Vienna, Austria on April 19th – 20th 2016. This event was attended by 24 experts from international, national, and European organizations, NGOs, Foundations, Banks, and Business people aimed to explore win-win strategies potentials, green growth, and green business models to support the climate goals, particularly those related to the Paris Agreement and SDGs. This dialouge was also aimed to expand the vision of green economy that integrates climate change, business opportunities, economic goals, and sustainable developments as well as identifying several concrete strategies and practical examples of win-win solutions that support this such integration.
d. ICCTF sent two representatives to participate in "Asia LEDS Forum 2016: Mobilizing Finance for Priority Actions" which took place on June 27th – 29th 2016 in Vietnam, organized by the Asia Low Emission Development Strategies (Asia LEDS) and the Ministry of Planning and Investment. This forum was aimed to support countries in mobilizing funds to commence Low Emission Development (LED) and is in accordance to the Nationally Determined Contributions (NDCs), which stated details of countries on climate actions under the Paris Agreement.

Development and Dissemination Organizational of Communication Materials

- Integration of ICCTF communication channels on social media platforms (Facebook and Twitter) thoroughly with another communication platforms, including ICCTF website.
- Newsletter launch.
- Development of organizational communication materials, including company profile, program booklets, program info sheets.

Supports on Communication and Outreaching Activities

- **UI Youth Climate Day 2016**
  ICCTF participated in University of Indonesia Youth Climate Day 2016 on February 26th – 27th, organized by GreAction Indonesia at UI Campus, Depok. This event was launched by Prof. Emil Salim (Professor in economics), and Dr. Nur Masripatin (Directorate General of Climate Change Mitigation, Ministry of Environment and Forestry). The two-days workshop was joined by 100 participants. The participants were very enthusiastic to share their ideas on climate change mitigation, ICCTF Executive Director also gave a lecture on introductions to climate change funding.
- **Climate Finance Dialouge: "Investment Obstacles and Energy Project Funding in Indonesia"**
  Ministry of National Development Planning/ National Development Planning Agency, Financial Services Authority, ICCTF, and GIZ organized a climate change dialouge, "Investment Obstacles and Energy Project Funding in Indonesia" on March 1st 2016 at Pullman Hotel, Jakarta. This Climate Finance Dialouge was aimed to map a more detailed obstacles faced by financial service institutions in supporting renewable energy projects, as well as understanding challenges faced by renewable energy developers to invest and receive funding from domestic financial service institutions.
- **International Workshop on Bio energy**
  This workshop took place on May 11th – 13th 2016 in Bali, and attracted 60 participants from different elements of the society, including the industrial sector, national and local government, policy makers, NGOs, and researchers.

Workshop participants from the industrial sector, local and national government, policy maker, NGOs and researchers.

- ***Pusat Studi Ilmu Lingkungan* (PSIL), University of Indonesia Homecoming Day**
  ICCTF provided a funding support to PSIL Homecoming Day in University of Indonesia, Depok, West Java, on August 30th – 31st 2016, as well as giving expos and panel sessions. This event was organized as a forum to meet practitioners, researchers, and environmental policy makers in Indonesia.

OPERATIONAL ACTIVITIES

ICCTF continued the development of Oracle Enterprise Resource Planning (ERP) which has been prepared since 2015 to support operational activities that fit ICCTF business process. Moreover, ICCTF has also improved its human resources capacity through programs participated by staffs aimed to improve the capacity of staff, as well as the entire team to develop organizational efficiency. ICCTF has also passed auditing process by the Supreme Audit Agency Board (BPK) and external auditor for grants received in 2016 and the preceding years.

Development of Oracle Enterprise Resource Planning 2016

The ERP application system was developed to provide the necessary data format to be uploaded to Bank Mandiri's application as the ICCTF fund manager. The ERP system contains the following three major modules:

- Procurement and Purchasing System Information that includes supplier management module and purchase module.
- Accounting System Information and Financial Implementation that includes modules for General Ledger, Account Payables, Account Receivables, and Fixed Assets.
- Monitoring Program Implementation (funded projects / grants) that facilitates project proposals, projects selection and funded projects, provide a place to store beneficiaries data, input function for projects for every transactions completed, budget checking function on programs.

Capacity Building and Human Resources Development

1. Representatives from ICCTF Secretariat and ICCTF Board of Trustees participated in a Climate Finance Dialouge: Exchange with Experts and Practitioners in Germany on Renewable Energy Financing that took place on March 6th – 14th 2016 in Frankfurt, Germany. This dialouge was the result of partnerships between the Ministry of National Development Planning/ National Development Planning Agency, Ministry of Energy and Mineral Resources, Financial Services Authority, ICCTF, and GIZ. This dialouge created exchange between participants and the experts, project developers and investors in Germany on how to mobilize private investments for renewable energy projects. The discussion was focused at:
   - Technical, administrative, and financial challenges in realizing renewable energy transition in Indonesia.
   - Project finance as a funding instrument to mobilize private investments.
   - Public banks perspective on instruments and requirements for investing in renewable energy projects.
   - Insurance companies perspective on quality standards for renewable energy projects.

- Project developer's perspective on renewable energy projects financing mechanism as well as learnings from Germany regarding to transitional energy policies.

2. ICCTF staff participated in "Managing Project Preparation for Climate Change Adaptation" training that took place on June 6th – 10th 2016. It was organized by USAID ADAPT-Asia together with Asian institute of Technology (AIT), and Regional Resource Center for Asia and the Pacific (RCC.AP). The training was a part of staffs capacity development in managing projects related to climate change adaptation. A total of 23 participants from ministries/agencies representatives from 7 countries in Asia, namely Bangladesh, Cambodia, India, Indonesia, Nepal, Thailand, and the Philippines attended five day training.
3. ICCTF participated in "Green Energy and Climate Finance: Delegation Tour and Business to Business (B2B) Meetings" training that took place on October 10th – 14th in Berlin and Frankfurt, Germany. This event was organized by the Renewables Academy (RENAC), AG, ADFIAP Financing Sustainable Development, and was supported by Federal Ministry for the Environment, and Nature Conservation and Nuclear Safety. The main topics of this training were introductions to renewable energy and energy efficiency technologies, mitigation schemes and risk evaluations, knowledge sharing on the existence of international funding sources for climate change mitigation and opportunity of access to those funding sources.
4. ICCTF sent a staff to participate in a training about Climate Change Mitigation in Energy Sector Proposal Development, to be proposed to and funded by the Green Climate Fund (GCF). This training took place on December 12th – 16th 2016 in Bangkok, Thailand. This training was organized by Regional Resource Center for Asia and the Pacific Institute of Technology (RRC-AP AIT) together with the Institute for Global Environmental Strategies (IGES) under the Climate Change Asia (CCA), and financially supported by the Japanese Ministry of Environment. This training was aimed to increase participants' knowledge and ability in developing concept note for climate change mitigation projects to be funded by Green Climate Fund (GCF).

   The training participants came from climate change financing institutions such as the Ministry of Planning, Ministry of Finance, Ministry of Energy and Environment Resources from developing nations in Asia such as Indonesia, Thailand, the Philippines, Vietnam, and Bangladesh. Indonesia was represented Fiscal Policy Agency of Ministry of Finance, Directorate General of Renewable Energy Ministry of Energy and Mineral Resources, PT. SMI, and ICCTF secretariat.

AUDITS

BPK Audits on International Grant Programs for period of 2013 – 2014 (PREP-ICCTF) and Satker MWA ICCTF 2015-2016

During the audit processes, ICCTF facilitated data requests from the Supreme Audit Agency (BPK), accompanied BPK during field visit commenced in Kupang, East Nusa Tenggara, for ICCTF's program together with Pikul Foundation (2014), as well as commencing routine coordination with IBAU Ministry of National Development Planning/ National Planning Agency and BPK.

External Audits on USAID grants and DANIDA 2015 – 2016

Activities funded by USAID and DANIDA grants during year of 2015 – 2016 period were audited by external auditor team from Sriyadi Elly Sugeng and Partners (certified public accountant, management, and tax consultants). Audits for activities in 2015 were completed with satisfactory results.

FUTURE PLANS

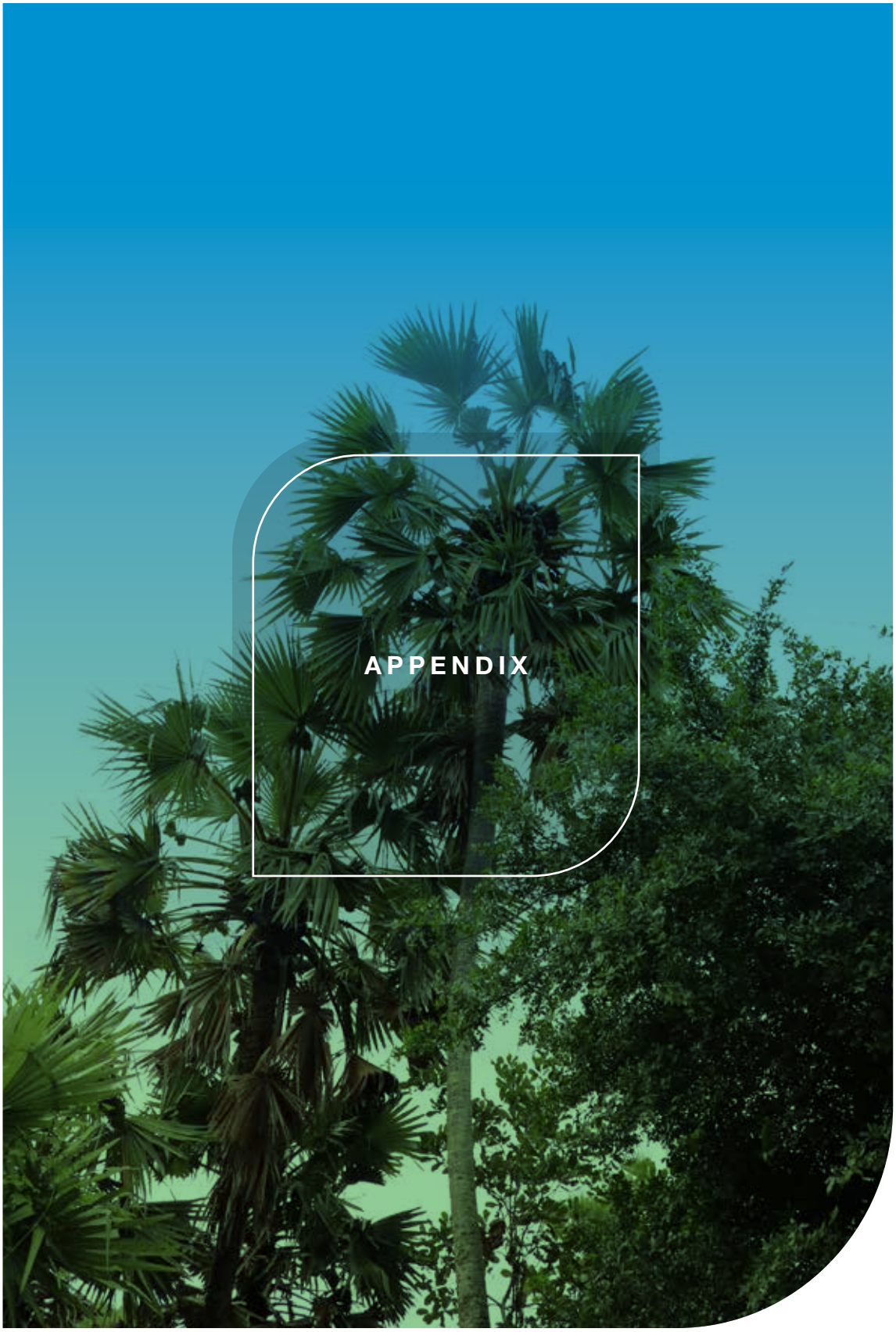
FUTURE PLANS

ICCTF understands the importance of a roadmap to the future. Thus, to ensure all activities are synchronized and in line with national priorities, ICCTF has developed a business plan that covers targets, investment strategies, prioritized programs, and proposed activities with planned budget.

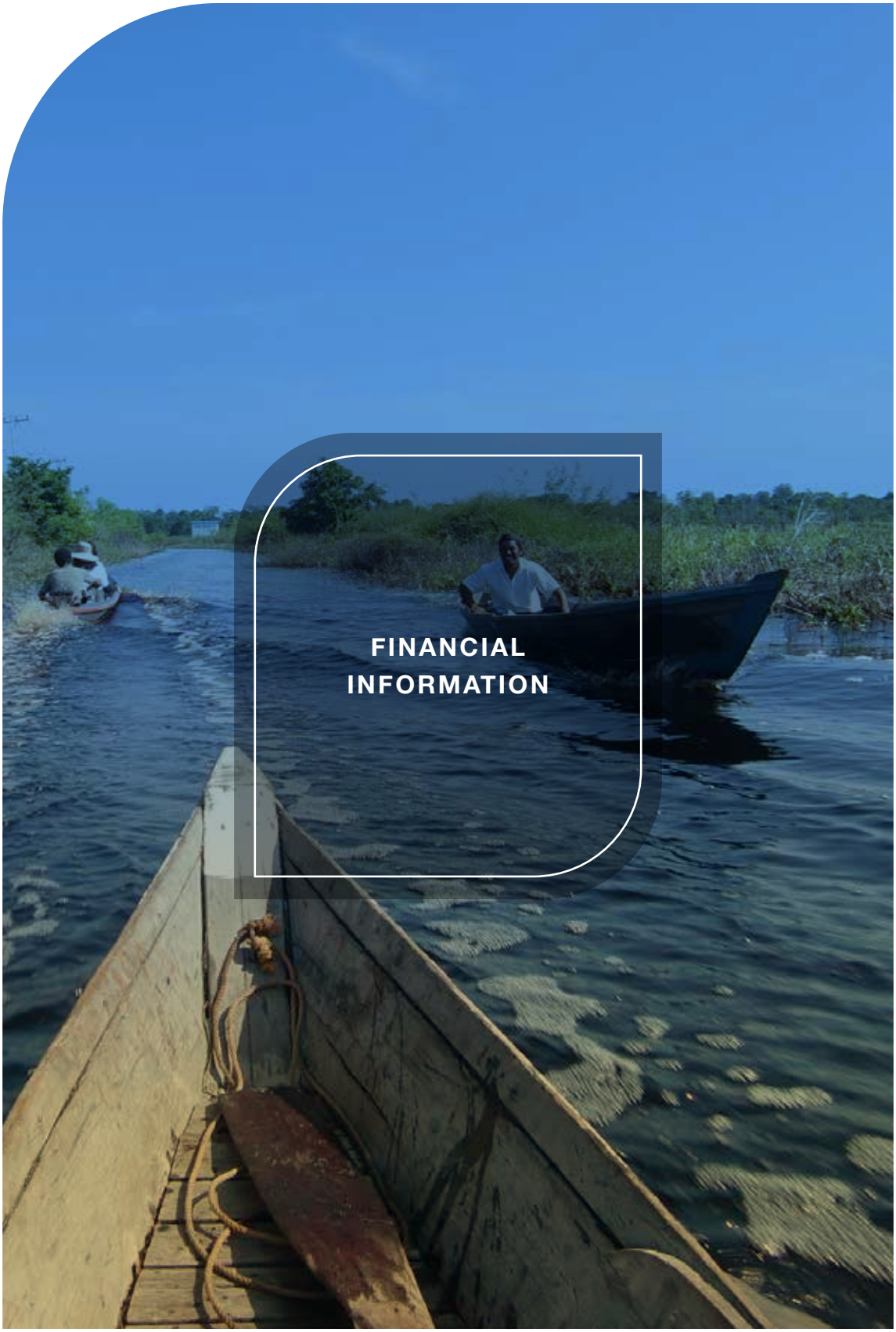
ICCTF will always fund climate change mitigation related programs. These activities are implemented according to ICCTF focus areas, which are programs that aim to reduce greenhouse gas emission through protection of critical and degraded land and rehabilitation efforts in buffer zones with close proximity to national parks (land-based mitigations), pilot programs that increase energy efficiency and develops energy conservation, as well as programs to raise awareness on climate change challenges among local communities including farmers and fishermen, which also help to introduce practical and precise actions that can be implemented by the society to adapt to the negative impacts of the climate change (adaptation and resilience).

Although all transitions have their own challenges, including ICCTF which has transformed into a national trust fund organization, ICCTF needs to face this change as a challenge to improve its organizational capacities. In 2017, ICCTF will be focused at these steps as follows:

1. ICCTF will focus itself on an organizational form transition so it could operate more efficiently through partnerships with trusted banking institutions. The new form of ICCTF, is expected to operate in 2018 with a few months of transitional period.
2. ICCTF will also expand partnerships with stakeholders, particularly the private sectors, which have big impacts on climate change mitigation.
3. ICCTF will always strengthen its three focus areas and expand its opportunity for NGOs, Communities, Universities, Local Governments, and Private Sectors to be ICCTF implementing partners.
4. ICCTF will implement Enterprise Resource Planning (ERP) further which has been prepared in previous years.



APPENDIX



FINANCIAL INFORMATION

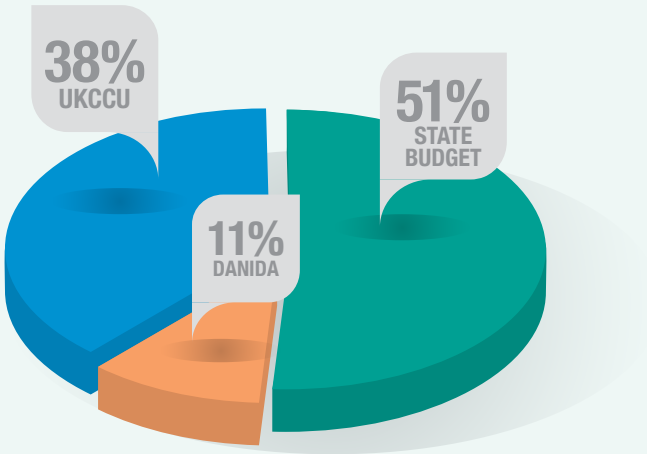
As the only National Climate Change Trust Fund in Indonesia, ICCTF always holds its principle of accountability and transparency in each and every of its activities that is related to finances so its organization governance principles can be achieved.

The year of 2016 is the first year for ICCTF to be a working unit under Bappenas that channels funds directly to implementing partners. The fund sources are direct grants from donors. With the support of GIZ INFIS, ICCTF has created a guideline on fund channeling to implementing partners, in which the funds are either direct grants, or are received from the state budget.

In supporting a good governance in 2016, ICCTF, with the support of USAID and DANIDA has built a web based ERP software system to strengthen its accounting information system and management at ICCTF secretariat. ICCTF has also selected a public accountant office to check the accountability and obedience in using grants received in 2016 that were channeled to implementing partners.

Received Funds in 2016

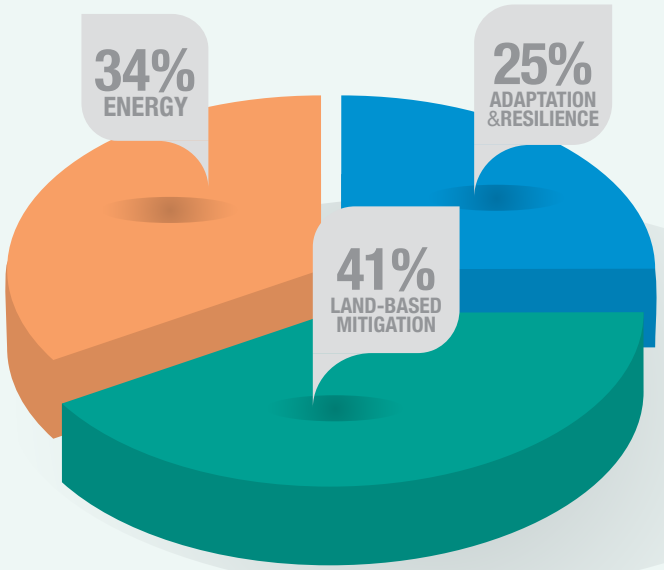
No.	Source	Amount	Amount in IDR	Period
1	Government of Indonesia	IDR 15,000,000,000	11,242,744,951 **budget cut in Sept. 2016*	January - December 2016
2	DANIDA	DKK 1,350,000	2,340,487,612.08	January - December 2016
3	UKCCU	GBP 499,400	8,460,192,400	April 2016 – January 2017
Total Amount Received			**IDR 22,043,427,963**	



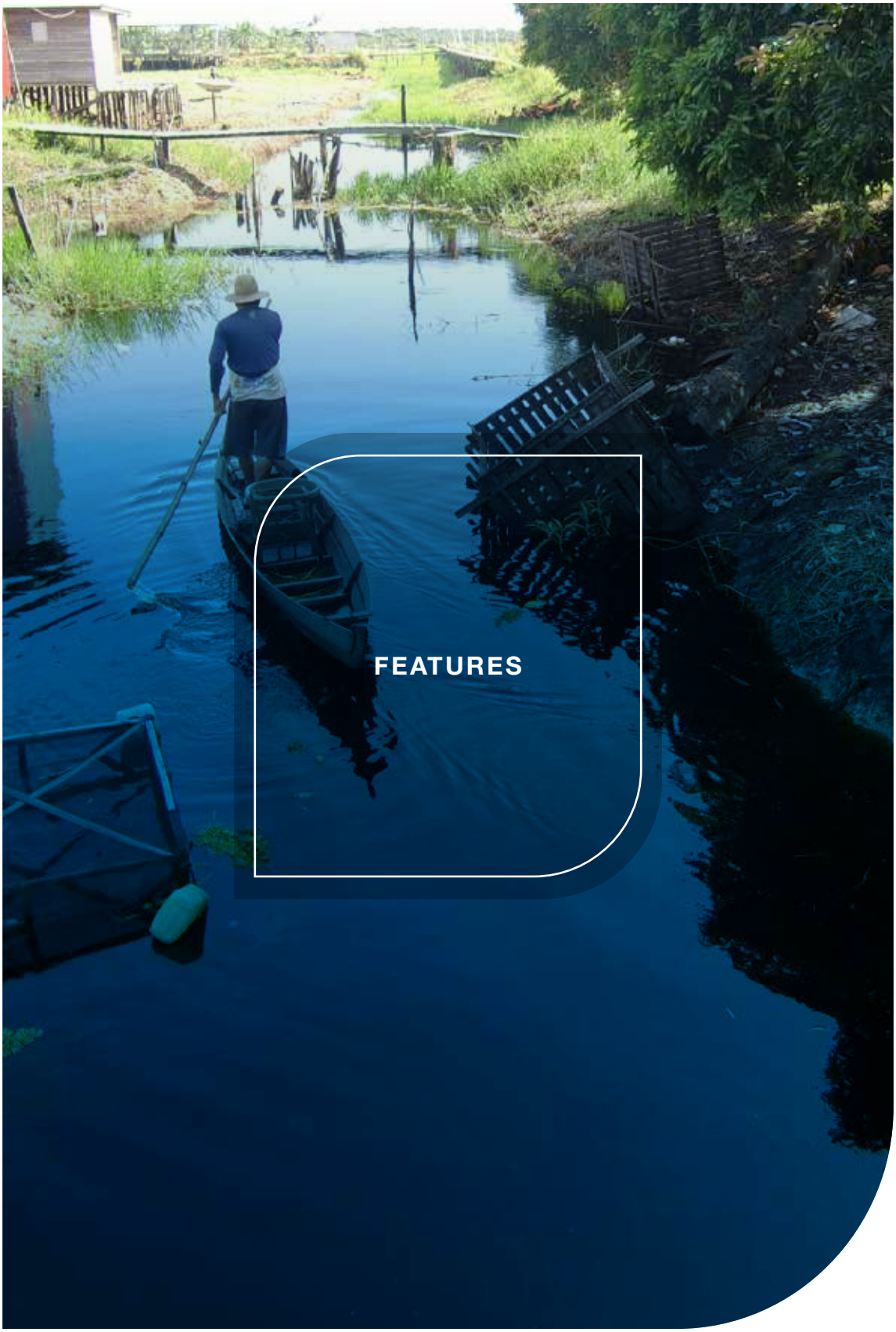
Received Funds in 2016

Realization of Managed Funds

No.	Source	Managed	Realization	Annotation
1	State Budget	IDR 11,242,744,951	99.20%	• Window Development/ New Program (Energy). • Program Monitoring and Evaluation. • Communications and supports to activities related to climate change. • Supporting Operational and ICCTF Secretariat capacity improvement. • Energy grant projects: 3 proponents.
2	DANIDA (Jan 1st - Dec 31st)	IDR 1,940,487,612	99.75%	• Window Development/ New Program (Energy). • Program Monitoring and Evaluation. • Communications and supports to activities related to climate change. • Supporting Operational and ICCTF Secretariat capacity improvement.
3	UKCCU	IDR 550,000,000	97.98%	• Call for Proposals. • Implementing Partner Candidates Assessment. • Unit Management Program Operational. *Note: Fund channeling to implementing partners will be commenced in 2017.*
4	USAID	IDR 18,511,500,000	76.06%	• 8 Mitigation programs. • 7 adaptation programs. • ERP implementation. • ICCTF secretariat staffs improvement.



Financing Composition Based on the 3 Focus Areas



FEATURES

YAYASAN JAVLEC INDONESIA

Fruits as Mitigation Action Solutions in Karst Region, Critical Watershed, and Gunungkidul Conservation Area

Amin Budiarjo, Climate Change Adaptation Specialist USAID, with ICCTF and Bappenas observe location of fruit plantation in karst area of Gunungkidul, Yogyakarta.

Girimulyo, Gunungkidul – July 27th 2016 – Gunungkidul Karst Mountains Region is a rocky, lime containing dryland. This condition made access to clean water for domestic, farming and husbandry needs extremely difficult. Javlec, with funding support from ICCTF initiated a solution for the communities living in 7 districts in Gunungkidul District through a land-based mitigation action by planting critical land in the karst region with fruit plants such as avocado and soursop plants.

The ICCTF team visited project sites in Gunungkidul implemented by implementing partners: EnerBI, Javlec, and YEU. The team also monitored project's financial documents from July 24th – 29th 2016. Representatives from USAID and Bappenas were also present. Amin Budiarjo, USAID Climate Change Adaptation Specialist, stated in his speech "We would like to see how ICCTF can help bringing forest management towards betterment". Measured forest management by implementing carbon calculation, which has been socialized by the National/ Regional Action Plan on Greenhouse Gas Emission Reduction, makes it possible to find out how much carbon has been absorbed by planting fruit plants in Gunungkidul.

Gunungkidul is one of the district in the Special Region of Yogyakarta, and the Government is seated in Wonosari District. Gunungkidul District itself has 18 sub-districts. Most of it area is made up of hills and karst mountains, with the soil composition mostly made up of volcanic rocks. This conditions made Gunungkidul famous as a barren land, with frequent droughts during dry season. Seven out of the 18 sub-districts in Gunungkidul District have been chosen as project sites, and to be planted with fruit plants by Javlec.

Head of Girimulyo Village, Suno Rahardjo said “Most of the populations in Girimulyo Village are farmers, because we don’t have any shorelines. The idea to plant avocado and soursop plants is very accurate, because they fit the mostly karst soil in Gunungkidul, so we expect the result to be good. We also expect this program will be sustainable and improves the economy”. Javlec team will supervise this avocado and soursop planting program for the next two years.

Panji Anom, Javlec Project Manager, added that the plants are the ones the communities need. There is a history of several plants that contributed to climate change mitigation and improved the welfare of the people. The communities can start planting as soon as next year’s rainy season. Currently, everyone is working on clearing of soil from rocks and also working on erosion barriers.

Communities utilize the rain water reservoir, in rainy season, and when the dry season comes, they rely on pond water to irrigate their farms and ranches. There are two types of forests in Gunungkidul, which are Community Forest (Village owned land) and National Forest, which can be managed by local communities by using the Community Forest (HKm) scheme. Twenty villages in Pathuk, Ngilpar, Paliyan, Playen, Panggang, Saptosari, and Semanu Districts have been chosen to be the project sites. These locations were selected under the consideration of the presence of local groups that are going to be in charge of the projects in their community.

“Hopefully what we are doing right now continues in the future, let it be local initiatives, self-made, or through government support and initiatives”, Amin Budiarjo added in his opening speech.

One of commodities was planted by farmers in Gunungkidul, Yogyakarta.

Team of ICCTF, Bappenas and USAID visiting demplot of HKm Management in Semanu Sub-District, Gunungkidul, Yogyakarta.

The Lake one of irigation source for farming in Girimulyo Village.

YAYASAN JAVLEC INDONESIA

Honeybee Cultivation: from yard to the side of road.

Welcome to the Honey Village

Waskito – 65 yo

"Since the very beginning we believe, understanding the nature will give us blessings. We don't have to sell woods to live anymore, making charcoals, and just leave our calcareous land not utilized".

Waskito is one of the 8 initiators that developed honey bee in Kedung Poh Village, Nglipar Sub-District, Gunungkidul District. Now, almost everybody cultivates honey bee in that village.

Thanks to the training that they received on honey bee cultivation from the Gunungkidul Department of Forestry and Plantations, these 8 people from Kedung Poh Village started their cultivations in 2009.

In the beginning, the cultivation used the method delivered during the training, which uses a square bee house with racking system. This method is still in use and has spread to the entire village. Almost everyone cultivates honey bee in their backyards, ranchesm plantations, on their porch, or even on the streets, packed with bee houses.

As the result of the increase of honey bee cultivation, the needs for bee foods become higher. Bees got their food from flowers of various plants that bloom around their houses such as teaks and acacias. Bees are sensitive to noise, and it can disrupt their productivity.

Thus, communities in the village have reduced the use of chainsaws to log trees, and they have realized the importance of not taking trees down. This was caused by the emergence of awareness that flowers on the trees are food source for their cultivated bees which are now their primary potential source of income. The selling price of a liter of honey is higher than logged timber, and this made everyone stop logging trees, and Kedung Poh village became a zero-logging village.

Cultivation and Contribution

Honey cultivation also positively contributes to plant cultivation, particularly understory plants. Understory plants cultivation actually becomes part of the program to provide food to the bees with the flowers that grow on them.

There are variations on the planted understory plants, such as ginger, turmeric, nuts, as well as plantation plants such as cacaos, bananas, soursops, and also fruit plants such as mangos, durians, and avocadoes.

Unproductive land is managed by planting understory plants. Some new variations of plants that are being cultivated are cacao, mango, and durian.

Study results and carbon stock calculation in Kedung Poh Village is 67.7 tons eq CO_2 per hectare. This value exceeds well beyond the average of carbon stocks in all ICCTF program sites which is 34.01 tons eq CO_2 per hectare.

Honey as result of cultivation.

Akasia rose.

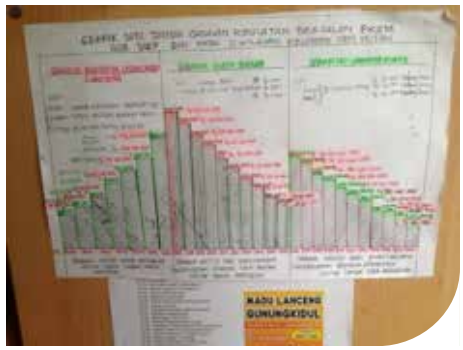


Chart of honey growth compared with firewood and charcoal wood.

YAYASAN ORANGUTAN INDONESIA (YAYORIN)

Nipah, Fish, and Karamba: Lamandau River Buffer Zone Conservation

Red onion plantations on fire-free land and brown sugar processing from Nira tree sap, are innovations in environment conservation efforts for the communities living in Tanjung Putri Village, West Kotawaringin, Central Kalimantan, which gives positive effects on the socio-ecomonics.

Farm field without slash and burn method is being planned onion commodity.

A three hour drive from Pangkalan Bun to Tanjung Putri Village finally paid off by the sight of Nipah trees and river streams as far as the eyes can see. This village sits on Lamandau riverbanks, and is inhabited by around 300 households, most of them work as either fishermen or farmers. People here use canoes as their primary transportation method.

This village is situated on the eastern buffer zone of Lamandau River Wildlife Reserve, with the area of around 10,000 hectares of secondary peat forest, and most of it has the status of Production Forest. Nipah and mangrove vegetations grow in an area of 210 hectares.

In this village, the Indonesian Orangutan Foundation (Yayorin) develop the "Eastern Lamandau River Wildlife Reserve Buffer Zone and Nipah Ecosystem Conservation as Community Forest (HKm)" program which is funded by ICCTF.

Yayorin was established in 1991 with the focus of protecting Orangutans' and other wildlife's natural habitat. Maintaining habitats and keeping it from land conversion is one of the most important activity in protecting the habitat. Yayorin's role in maintaining nipah's ecosystem and Lamandau Wildlife Reserve buffer zone is necessary for the efforts in mitigating climate change in land sector.

Mitigation is done by forest fire prevention due to slahs-and-burn technique, and converting land into palm oil plantation. Farmers are empowered by trainings on fire-free land management, developing and promoting alternative source of income, capacity improvement in security and forest surveillance, and forming watch groups that protect forest from fire and illegal forestry acts.

Through ICCTF support, communities develop farming land without burning,

and plant commodities such as chilies, eggplants, and onions. Prior to this program, people used to import chilies from Java, but now, Tanjung Putri Village pilots onion cultivation in West Kotawaringin.

Ruslan (30), a farmer that owns fire-free demonstration plot said “This condition is very good and economically beneficial, but requires more funding if it were to be implemented self-reliantly to more people”. One of the primary need of the people is pipelines to channel water to drying fire-free lands during dry season. Water demand is higher during dry season.

Along with land development and fire-free land management trainings, the communities also cultivate freshwater fish in 3 x 2 x 15 meter karamba. The cultivated fish is Baung, Haruan, and Tembakang fish. Baung fish has the highest resilience against brackish water when the tide is up.

The housewives that are associated with the Independent Women Forest Farmers Group have started an innovation by processing Nipah tree saps and turning them into brown sugars. This activity has become an alternative source of income and has improved welfare in the communities. Nipah trees flourish along the Lamandau riverbanks, since it is one of the buffer ecosystems of the Lamandau Wildlife Reserve.

The challenges faced by the communities right now are the high rate of land conversion rate from peatland to palm oil plantation, and the difficult access to clean water and electricity. Clean water source in Tanjung Putri Village is getting harder to find, since peat swamps are converted into plantations, thus reducing water discharge rate and making the water saltier. This caused people living in Tanjung Putri have to go to Pangkalan Bun just to buy clean water.

In the future, Yayorin is planning to rehabilitate damaged secondary forests by planting Jelutung, which can be utilized as another alternative source of income for the communities through Sepakat Community Forest.

Box of fresh water fish as alternative livelihood for villagers of Tanjung Putri, Central Kalimantan.

Nipah forest ecosystem on riverside of Tanjung Putri, Kotawaringin Barat, Central Kalimantan.

UNIVERSITAS GADJAH MADA

Answering Regional Climate Change Challenges in East Nusa Tenggara by using SRI (System of Rice Intensification) Paddy Cultivation Method

Demplot location from adaptation program (developing of SRI for rice farming in Baumata Village, NTT.

"Implementation of SRI method in Baumata is excelling since the communities are involved in analyzing ecology and climate change by telemetric technology implementation analysis, so the communities understand more about agriculture management that is resilient to the climate change."

Located less than 17 kilometers away from Kupang, the provincial capital of East Nusa Tenggara, Baumata Village is a village with the eastern Indonesian tourism charm. This village has a natural spring, which is used for industrial and domestic purposes by the local water company, as well as tourism purposes since it flows the famous Baumata natural swimming pool. But, the farther it is from the spring, access to water will be more difficult. As seen on the project site of "Climate Projections and SRI (System of Rice Intensifications) Paddy Cultivation Adaptation Strategy on Regional Climate Change using the Climate – plant – Soil – Water Integration Model in East Nusa Tenggara" in Baumata and Tarus Village, implemented by the Agricultural and Bio-System Engineering Department, School of Agricultural Technology, Gadjah Mada University, Yogyakarta, and funded by ICCTF.

In those villages, available water source has not been able to fulfill the needs for water of all farmers in Baumata Village, which has around 533 households with the population of 2,442 where 95% of them make their living by farming. Permanent irrigation infrastructures are negligible and self-made irrigation in the rice fields by the communities aren't permanent, so it relies on the ever changing weather. The farther a rice field is from the water source, the crop failure rate will be bigger. This has been the main challenge for local farmers.

On average, Baumata Village produces 12 tons of paddies per hectare when the weather is favorable, and the rice field is

in close proximity to the water source. In 2015, out of 146 hectares of farming land in Baumata, 34.5 of it experienced total crop failure, while the rest produced a little.

Climate change has caused water source scarcity and competition among its users and could possibly change the cropping patterns in Indonesia. This caused the quality of the crops, especially paddies, become less favorable, or even complete crop failure due to lack of understanding on learning climate characteristics and extreme climate change due to global warming. Therefore, the most effective approach is to adapt the farming system to the local climate condition. Adaptation is possible by analyzing and translating climate and weather data.

Responding to the climate and weather anomalies, the UGM team has introduced the SRI system. SRI is an sustainable innovative method for plant growth by using young seeds (7 days after the cultivation), inconstant irrigation, wide planting range, organic fertilizers, and some weeding, which gives a higher productivity on paddies than using conventional methods. Conventional method uses older seeds (25 days after the cultivation), constant inundation in water, tight planting range, and high dose of chemical fertilizers. The SRI method answers the challenges faced by farmers in Baumata and Tarus, which is shortages on water supply for irrigation purposes.

When ICCTF visited the project site, there was a socialization on introductions to paddy cultivation system using SRI method as adaptation effort to climate change. There are two demonstration plots each in Baumata and Tarus. One plot is planted using SRI method and the other is planted using conventional method as comparison. This was done as a trial as well as to compare the superiority of paddies planted using SRI method to the conventional method.

A telemetric device was installed in each demonstration plot to observe and record data on weather. Meanwhile, UGM developed an application technology to analyze micro-climate such as rain, temperature soil humidity, and these data are accessible at the project site. This technology will help to implement the telemetry result. Data received from the telemetry device is updated daily during the program so it is possible for evaluations to take place on the same day. This application has a great potential to be utilized by the communities in general, in the future.

SRI planting method is prime due to its water, cost, and time efficiency, its environmental friendliness, and produces high amount of harvest. In this method, communities are involved in analyzing the ecology and climate change through telemetric technology implementation analysis, so the communities understand more about a climate change resilient agricultural management. Therefore, this method also encourages the farmers to be self-reliant in deciding their farming methods, such as cultivation process, storage, as well as products distribution. Most of the regions in Indonesia who have implemented SRI method, have not combined the method with telemetric analysis as it was done in Baumata and Tarus.

YAYASAN LINGKUNGAN HIDUP SELOLIMAN (YLHS)

Giving Back Water to the Nature for Life Continuity

Keteleng Village.

Water is one of the most important human primary needs, given by the nature to humans. The amount of water catchment areas in the mountains is reducing due to land conversion for residential or agricultural demands. The already damaged environment is worsened by the uncertain climate change. Keteleng and Bismo Village sit on the water catchment area and is the primary source of water to Batang District and its surrounding areas. But in the past decade, the produced water discharge rate has experienced a significant drop over time. This will affect all sectors of life when clean water shortage happens.

Keteleng and Bismo are two small villages that sit on the Kamulyan Mountain foot, in southern Batang District, Central Java, with the altitude of 800 – 900 meters above sea level. With the size of 882,780 and 557,775 hectares respectively, both share typical mountain foot topography; steep, green mountains as far as eyes can see, dominated by farmlands and plantations. Majority of the people make a living by farming. Administratively speaking, both villages are within the area of Blado Sub-District.

At the border of Keteleng and Bismo village, lies a spring, locals call it Bismo Springs, occasionally “Tuk Limo”, which in Javanese derived from “rembese limo”. This spring is utilized to irrigate 224.79 hectares of farmlamd in Blado Sub-District.

Moreover, this spring is managed by Batang Water Company, and fulfills 40% of the toal water demand in Batang service area with the discharge rate of 240 liters per second. But the discharge rate has been constantly dropping in the last decade, at around 10 – 30%. This decrease happened because

of land conversions and climate change. Improper land planning has decreased infiltration capacity and increased runoff rate.

Worried about the threats, Seloliman Environment Foundation/ Yayasan Lingkungan Hidup Seloliman (YLHS), supported by ICCTF, has implemented "Northern Dieng Mountainsides Block Water Sources Conservation as a Climate Change and Adaptation Actions" program which goes in line with Batang District Regulation No. 16 Year 2010 on Environment Protection and Management in Batang.

One of the physical activity that has been done is the building of 200 catchment wells in Bismo Springs Area, precisely in Bismo Village and Keleteng Village administrative area. Catchment wells were built using tubular shape with the dimensions of 1 x 2 meter, built in residential areas, ponds, plantations, and village owned lands, public infrastructures, and village roadsides.

These catchment wells will absorb rain water in order to increase Bismo spring discharge rate directly and indirectly. The size of water catchment area is around 274.8 hectares at the mountainside of Mount Kamulyan, in northern Dieng Mountains. The catchment wells cover 15% out of its total catchment area in Bismo and Keleteng village. These catchment wells are expected to absorb up to 160 m^3 of water every year.

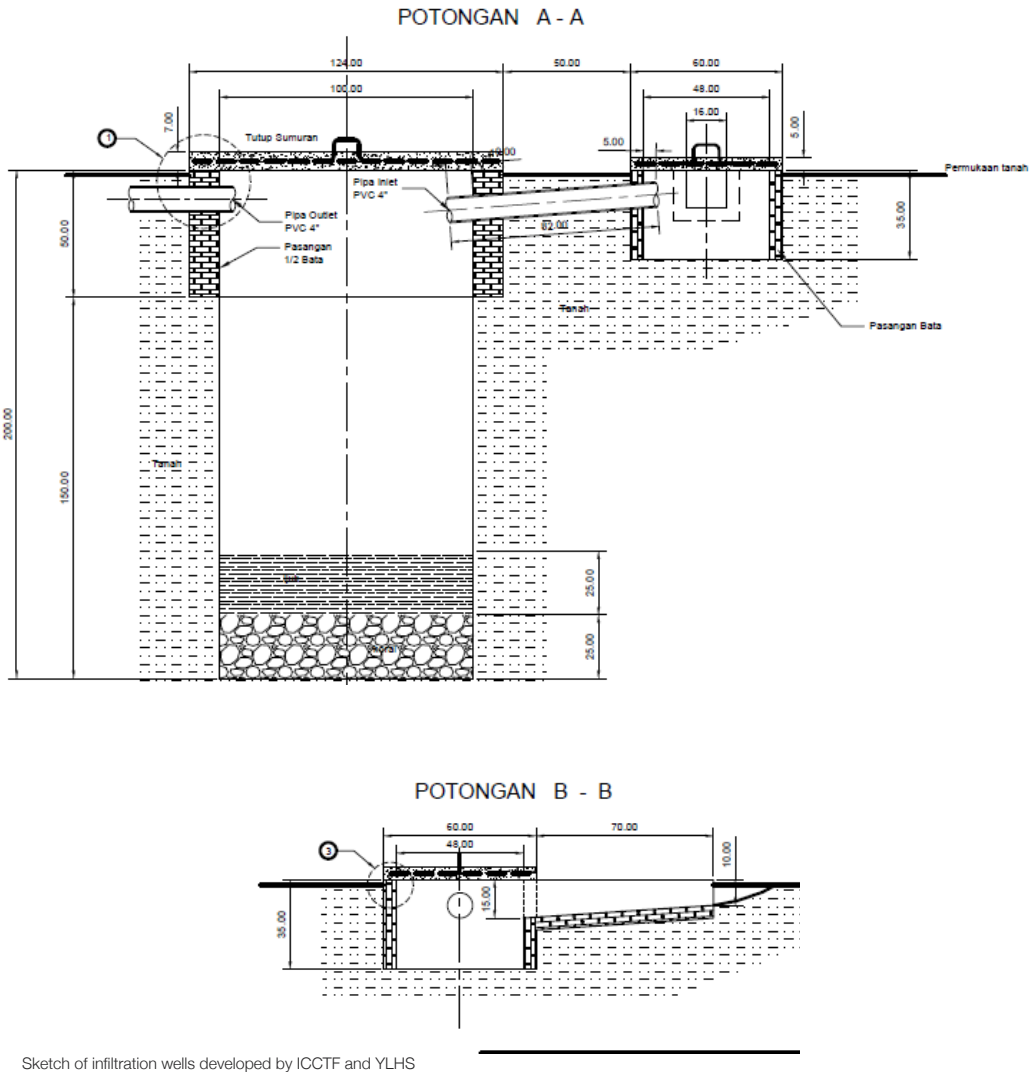
The catchment wells construction monitoring by Suroso, Director of YLHS.

Nernan Surono, a local public figure in Bismo Village who is also the head of KSM Bismo Sejahtera, said "These catchment wells have also reduced the amount of flooded water to the streets when it rains".

"Before the catchment wells were built, almost after it rains there would be puddles around the houses and streets would be flooded. But with the catchment wells, the street damages due to rain has been reduced". He explained.

The catchment wells have also given positive impacts on street maintenance budgets, since the wells built on the sides of the streets effectively reduced the amount of water streaming through the streets. The communities also very enthusiastic about this program, because it conserves the Bismo Spring. Head of KSM and village officials hope that everyone takes part in conserving the environment around the Bismo Spring.

Sukiman, Keteleng Village Secretary, said "The effects of environmental damage in Keteleng Village is slowly becoming real. This is shown by Bismo spring discharge rate that keeps reducing, while it is utilized by everyone for daily use and farming purposes." "Right now is unlike 10 or 15 years ago, people didn't have to walk far to get clean water". He added.



Sketch of infiltration wells developed by ICCTF and YLHS

Some has already realized the current degradation of environmenr quality. But many are still unaware. Some still even do destructions to the environment. The aware and critical communities have already made written prohibitions on environmental destructions at critical locations.

Sukiman also stated that Keteleng Village feels very lucky and grateful to have this environment conservation program in their village, from YLHS and ICCTF. This program builds not only physically but also touched the legal aspect by initiating village regulations on environmental management. It is expected that the village officials has a strong legal basis in managing the environment in Keteleng Village.

To draft this regulation, YLHS has coordinated with the village government and the village representatives, as well as involving the local government, the community, and also private sectors and local companies in the vicinity. The participatory method is used so that everyone takes part in the drafting process of the regulation, such as FGD activities. The regulation draft also considers local values and tradition in the implemented prohibitions and punishments.

Keteleng Village Regulation No. 04 Year 2016 on Community Based Environmental management has been completed and socialized on August 31st 2016. This regulation contains rules on environmental management, land use mapping, as well as involvement of the private sectors and local companies to take part in environmental management in Keteleng Village.

Government plays a big role in the drafting process of this regulation. This can be proven by the involvement of the Environmental Agency (BLH) of Batang District have actively supported the drafting process of the regulation. BLH also contributed in providing advices on the contents of the regulation since its role as the leading sector in environmental management in Batang, particularly in Keteleng Village.

Ir. Agus Riyadi, M.M., Head of Batang District BLH Department stated that village regulation on environmental management drafting process is important, especially in upstream locations which is a buffer area, thus must be conserved. “Keteleng Village and its surroundings is a water-rich area and it has big potential in utilization for clean water and agriculture.” He added.

Therefore, Bismo Spring can keep on flowing and benefits the communities around it, as well as those who live far, but still rely on it. Because, Bismo Spring conservation is not only the responsibility of the Bismo Village and Keteleng Village residents, but is the responsibility of everyone.

Meeting for village regulation (PerDes) in Keteleng Village


NEWS
COVERAGE

REPUBLIKA - WEDNESDAY, APRIL 20th 2016 | 17:28 WIB
http://www.republika.co.id/berita/nasional/umum/16/04/20/o5xh31280-pentingnya-generasi-muda-memahami-peranan-atasi-perubahan-iklim

The Importance of Youth Understanding Their Part in Tackling Climate Change

By: Hazliansyah

Republika.co.id, Jakarta – Climate change gives enormous impacts, especially to Indonesia which has the third largest rainforest and second largest mangrove forest in the world.

Therefore, the youth plays a very important role in climate change mitigation efforts.

"Changes is current youth's era is happening very rapidly, that's why they have to be quicker, and more innovative in dealing with climate change," Sarwono JKusumaatmadja said, Head of Climate Change Board Directors at the Ministry of Environment and Forestry.

This was explained by Sarwono during "Inter-generations Dialouge: Challenges and Opportunities for the Youths" at the Climate and Development Knowlede Network, Indonesia Climate Change Education Forum & Expo 2016 Arena, JCC, Senayan, Jakarta last weekend. With a good role of the youths in mitigating the climate change, Indonesia could have a major role in controlling the world's climate.

"In your era, there will be rapid changes. So we have to do two things at once, mitigation, and adaptation to reach climate resilience," he said.

Furthermore, Febby Turniwa, Director of the Institute for Essential Services Reform, who is also a member of the ICCTF Trustee Board, said it takes 30 years to ensure the results of Paris Agreements, which means, every single policies on global warming are on the hands of the today's youths. The UNFCCC COP21 in Paris last year agreed to the limit of global temperature raise average to be lower than 2 degree Celsius for pre-industrial and will try to suppress it to become less than 1.5 degree Celsius.

The Importance of Youth Understanding Their Part in Tackling Climate Change

"The youths who are now in middle or high school will be the key actors in mitigating climate change in 30 years or by 2050. That's why it is very urgent for them to understand this matter today and have the ability in mitigation and adaptation," he said.

One of the things that can be done, Febby said, is understanding and lives a green living.

"The future of Indonesia's greenhouse gas is in your hands, and you have to be innovative in developing a carbon-aware

(Countinue to page 96)

lifestyle, such as switching the lights off when the room is empty, or turning off the TV when nobody is watching", Tuniwa explained.

Meanwhile, Gracia Paramitha, an educator at the London School of Public Relations, who is also a UNEP TUNZA Global Youth Advisor on Asia Pacific sees the youths all over the world have already cared for the climate change. She learned this when she was attending the COP21 in Paris. That's why Indonesian youths have to start taking roles.

"Youths these days do not ignore climate change. They came all the way from different countries and attended such creative event. They are also very educative and sensitive on climate change issues," she said.

She believes that youths these days have a lot of options when it comes to considering creative ideas regarding environment issues, such as utilizing the social media. "So, apart from being innovative, they need to be creative as well. We adopt a lot of ideas on social media," Gracia said.

TRIBUNNEWS.COM - FRIDAY, JUNE 3rd 2016 | 16:46 WIB

http://www.tribunnews.com/regional/2016/06/03/pemerintah-kabupaten-gorontalo-serius-menangani-dampak-perubahan-iklim

Gorontalo District Gov't Takes Climate Change Mitigation Seriously

Editor: Eko Sutriyanto

Tribunnews.com, Gorontalo – Transformasi's Senior Adviser, Sarwono Kusumaatmadja, said regional development plan is the vital key attention in mitigating the climate change.

Considering regional development is the frontline of national development in the currently implemented regional autonomy system in Indonesia. "Law No. 23 Year 2013 on Local Government mandates government affairs in environment sector as a mandatory affair." He said during a pers conference in Gorontalo Regent's Office (3/6).

Government affairs in environment sector has 7 sub sectors, each has divisions of roles and responsibilities between central government, provincial government, and local government (city/District).

In regard to that matter, Sarwono explained that Transformasi is committed

in helping Gorontalo District Government to compose Climate Change Adaptation Strategies and integrate them to the local development plan.

This program was commenced with the support of National Development Planning Agency (Bappenas) through ICCTF which starts today and ends in February 2017.

Gorontalo District was chosen as the project site location because it is one of the most vulnerable regions to climate change in Indonesia, according to Transformasi's Program Director, Nazla Mariza.

Moreover, considerations wera based on the availability of initial data, the Vulnerability Assessment Study at the province level in Gorontalo, commenced by the National Climate Change Board in 2011.

Another significant factor is that Gorontalo District has just elected a new leader who puts big attention on environment sector.

Morevover, Nazla said, this program is aimed to increase understandings among Gorontalo District officials, on the impacts of climate change, including the executives and legislatives, representatives from the provincial government, as well as key institutions in regional economic development plan, such as Gorontalo District Regional Development Planning (Bappeda).

The target for these objectives also includes communities and the private sector, and to increase target's local government capacity on arranging climate change strategies, together with the stakeholders, and integrate them to the regional development planning.

"We do hope that we can work together with the local government and related stakeholders, such as the universities, NGOs, private sectors, Medias, and the vulnerable communities, to create an API strategy that fits the needs and priorities of the local government." Nazla said.

It is expected that the API integration process can be a lesson for another regions, at the provincial or even national level. So, similar processes can be triggered to start in other regions.

Gorontalo Regent, Dr. Nelson Pomalingo, said, his officials are open to the API integration to Gorontalo District's regional development plan.

The same commitment was also made by the local Regional Development Planning Agency (Bappeda), as the authority that runs the coordination in agricultural planning, infrastructures, fisheries, and healthcare.

Nelson hopes that this program improves the capacity of the local task forces and officials, and other related officials in creating a climate change adaptation strategy and integrates it to the regional development plan in his District.

"Hopefully Gorontalo District can be a role model for other local governments in Indonesia." He said.

ANTARANEWS - TUESDAY, JULY 19th 2016 | 11.25 WIB

http://www.antaranews.com/berita/573892/icctf-puska-ui-inisiasi-klub-pengukur-hujan-di-ntb

ICCTF – Puska UI Initiated Rainfall Watch Group

By: Roy Rosa Bachtiar

East Lombok **(ANTARA News)** – ICCTF together with Anthropology Studies Center (Puska), School of Social and Political Sciences, University of Indonesia initiated Rainfall Watch Groups in East Lombok District, West Nusa Tenggara.

Initiation of these groups is a part of the Science Field Shops (SFS) program implementation, executed by Puska UI with ICCTF support and is aimed to anticipate famers' loss due to crop failure caused by the climate change.

"With this program, we hope that in 5 years we will have good farming pattersn. SO this program was meant to help farmers to decide when is the best time to start planting until harvesting period in climate change condition," says the ICCTF Trustee Board member, Jatna Supriatna in East Lombok, West Nusa Tenggara on Tuesday morning.

Meanwhile, University of Indonesia Professor in Anthropology, Prof. Yunita T. Winarto thinks that this program has been running very well and received positive responses from farmers in East Lombok, and this program is expected to reduce the impac, ts of climate change in agricultural sector in that area.

She explains, it has only been less than two years since the program was made in late 2014, and as pf July 2016, 9 groups have been made in East Lombok. Each 4 groups in Keruak Distrik, 3 in Sakra Distrik, and 2 in Jerowaru District.

"This is a good collaboration between farmers, government and scientists, in programs like these. Because according to our previous experience, it is not easy to get farmers on board with a program like this in such short time," Yunita, one of the initiators explains.

This program was meant to form a networking among government, farming instructors, farmers, scientists, and other related parties to help improving farmers' ability in adapting to the climate change through agro-meteorology learning at SFS.

SFS develops a new tutoring approach with knowledge diversion for operational utilization, she says.

SFS program which is sponsored by Puska UI, is financially supported fully and directly by ICCTF from April 2016 – March 2018 in Indramayu District, West Java, and East Lombok District, West Nusa Tenggara.

ICCTF is a task force under The Ministry of Development Planning/ National Development Planning Agency (Bappenas), which is in charge of managing the funds for mitigating climate change Indonesia. The Task Force was established in 2009 and aims to improve the effectiveness coordination and efficiency of handling climate change in Indonesia in accordance with the National Action Plan / Regional Decline Greenhouse Gas Emissions and Action Plan The National Climate Change Adaptation.

METROTVNEWS.COM - JULY 20th 2016 | 10:29 WIB

http://m.metrotvnews.com/news/daerah/9K5GmWxb-iklim-berubah-penanggalan-pertanian-tradisional-tak-efektif-lagi

Climate Change, Traditional Agriculture Calendar Dating is No Longer Effective

Metrotvnews.com, East Lombok - Traditional agricultural calendar system such as Pranatamangsa in Java or Warige in Lombok Island is no longer effective. Global climate change has made agricultural cycles disrupted.

Anthropology expert from the University of Indonesia Prof. Yunita T. Winarto says, pranatamangsa or warige methods only use space objects as the indicators, while they are actually in static.

"To make traditional calendar dating more effective, technologies based on the scientific methods must be used in order to get a correct calculations of the growing season and the harvest time." said Yunita, after educating farmers in East Lombok, West Nusa Tenggara, quoted by Antara, Wednesday (07/20/2016).

According to her, global climate change affects weather conditions or the airflow in West Nusa Tenggara. Thus, we can be sure that the farming cycle in the region will be disturbed. "In the two years of observation, traditional calendar dating completely missed the real dates.

For instance, in 2015, it was approximated that it would rain but it turned out there was El-Nino," said Yunita. Even so, Yunita asserted that related forms of local wisdom and values in farming should all be abandoned or experiences function shift due to the climate change. She gave an example, on how to identify and read animals behavior in the wilds. Animals are considered to have the senses or sensors that are not owned by humansto read the signs of natural events.

"They have a sensor that we do not have, it sometimes can be used for some purposes," she said.

In regards to the mitigation efforts of the climate change impacts in the Agriculture sectors, Anthropology Studies Center of the University of Indonesia cooperated with Indonesia Climate Change Trust Fund (ICCTF) to do counseling to farmers in East Lombok District.

HARIAN MEDIA INDONESIA (PRINTED) - SATURDAY, JULY 23th 2016

Knowing the Season with Centong

By: Siti Retno Wulandari

06.30 am, Sahiban is already at his rice fields. However, the first thing he does is not to check plants condition, but checking a tube made of zinc mounted to the field.

Into that tube which he calls it Centong, he examines the water height. He only uses a ruler. Then he noted the height of the water in a book.

He has done that measurement and other farmers in Pandan Wangi Village, Jerowaru District, East Lombok District, since late 2014. They use that rainfall data to decide what will be planted in the next season.

“After a month of data recording, we will discuss it by evaluating the daily rainfall rate.” Says Zulkarnaen, a farmer in Pandan Wangi Village, when interviewed by Media Indonesia on Tuesday (19/7) at his rice field.

If the data recording shows more rainy days, then they will plant wet plants such as paddies on the next season. If it shows otherwise, they will plant dry plants instead.

Although data record is being done every day, the most important data they would consider is the last month’s data before harvest time. These farmers also consider the seasonal forecasts made by the Meteorology, Climatology, and Geophysics Agency (BMKG).

Although most farmers follow the data obtained from observations using the Centong, some decide otherwise. Such as Sahiban who decided to plan tobacco although the data records from the last season that there were more rainy days.

Now he has to bear the consequences. After a month, his tobacco plants have not reached the height they’re supposed to be at, 50 centimeters.

“It rains a lot, so my tobaccos can’t grow well. So only few can be harvested, that’s for sure,” Sahiban explains at his 100m^2 field. Even though it was blazing hot that day, but it rains more often than usual.

Zulkarnaen also didn’t follow the data entirely. But, he anticipated crop failure by planting 2 types of crops. He felt that harvest quality has improved since he used Centong data.

“After we have this method, the harvest actually gets better because be routinely check our fields. In 2014, my 500 m^2 field produced 4,400 kg, but when we used this method, the harvest in 2015 goes up to 4,468 kg,” he says.

Anticipations, not Fortunes

The Centong method was introduced by a Professor at the Anthropology Sudies Center of The University of Indonesia,

Yunita T. Winarto. She introdiced hat method with a colleague of hers, an agro-meteorology expert, Kees Stigter, to farmers in East Lombok District.

Yunita admits that she used to be excited by the number of farmers who wanted to learn, but also feel sad at the same time because of the crop failures. But, daily weather condition records do not mean that we can make a precise predictions for next year.

The data obtained is only used as anticipation and reference should farmers choose what crops have to be planted, "Farmers will understand better, if it rains like this, the rainfall rate would be this high. A week of observation, then a decision on what crops should be plated can be made," she explains.

Rainfall data is not to be generalized. Every locations have their own data. This method is also implemented on farmers in Indramayu District, which also received funding from the ICCTF, as well as from other international donors.

Farmers, Yanita says, do still rely on local values and cultures as their reference on planting and harvesting seasons. But, it doesn't mean that they are not open to adapt with the latest advancement.

"Whether in Indramayu or East Lombok farmers have their own beliefs, we can clearly see that the climate change can't be predicted anymore, so local values and cultures must be combined with academic sciences," she says.

GATRA - OCTOBER 5th 2016

Cement Tires to Prevent Abrasion

By: Hendry Roris P. Sianturi & Purnawan Setyo Adi

Story of a self-reliant village that inspires in the middle of climate change impacts and environmental destruction. Working together and learn how to harvest power from wind power and how to turn it into electricity.

Jamsuri (50), pointed at a pile of bricks that used to be his bathroom, which have almost sunk. In 2012, abrasion destroyed dozens of homes, including his house even though it was 200 meters away from the shoreline. Now he owns a new home, but that tragedy 4 years ago could never be gone from his memories.

Jamsuri remembers that there were at least 50 destroyed homes. Bungin Village was

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abraded as far as 2 kilometers inland. The once beautiful beach, now looks barren. “I can’t believe it, it happened constantly,” he told GATRA last August. Abrasion has become a nightmare for everyone here. Januari who makes a living by processing seaweeds, said that the cause of this constant abrassion started in the 80’s. Lots of barges scraped the seabed sand. They come at night, every night. It had once stopped in 1998, but continued. He believes that those ships comme from Jakarta.

The result of that exploitation was a constant abrasion, waves kept knocking out the mangroves. As it is today, a barren beach. Unmanaged, covered by trash.

Oceanography researchers from Indonesia Science Agency (LIPI), Pramudji Sastrosuwondo, added that the damaged mangrove ecosystem caused disruptions to other ecosystems. At least there are three coastal ecosystems that could protect the shoreline from abrasion, naley sea grass fields, coral reefs, and mangroves. If the mangroves are taken down, there will be sedimentations which can destroy the sea grass fields and coral reefs. Mangroves will run out of nutritions. “Those three ecosystems go hands in hands. Because there are interactions among them,” he added.

Meanwhile, the acting Environment Director of the Ministry of National Development Planning/ National Development Planning Agency, Wahyunungsih Darajati, explained that the northern coast of Java is vulnerable to abrasion. Mangroves, she added, is used by most people, but are not treated well. “If they are well managed, mangroves have a lot of benefits other than preventing abrasions.”

The government, she believes, has already had climate adaptation and mitigation programs. Wave breakers, she said, are one of the technical programs that can be implemented by local governments. Every region must have vulnerability assessment, which contains analysis and mapping of abrasion threats, area identifications, related institutions, and types of responses to the threats. “Like in Japan earthquake happens a lot, that’s why the buildings are built accordingly. So, if everyone has vulnerability assessment, then everything will work.”

Muara Bungin Village sits on the Citarum River Estuary, Pantai Bakti, Bekasi, West Java. Geographically speaking, it is is bordered by Java Sea to the north, and Karawang District to the East.

Most of the people are fishermen, with daily income of no more than IDR 100,000. Basir, a local public figure who is also the head of Neighborhood 01/Community 01 Bungin Village, mentioned that most people in his area live on the state-owned land and property which is also utilized as fish, shrimp, and seaweed cultivation centers.

Things become less favorable when abrasion and environmental destruction caused by sand mining activities start to have impacts on Citarum River. The shallowing riverbed makes it difficult for fishermen to fish. The result, their fishing schedule becomes uncertain. Their income is of course affected as well.

Another challenge is the fishing time, according to Basir, changes a lot. In September, fishermen are supposed to catch a lot of fish. But now, some go home with only 5 kg of fish. On other days, some even go home having nothing at all for their families, due to the raging waves. Weather anomalies made the fate of fishermen in Bungin Village unclear.

Communities, sicken of the abrasion, responded with some solutuions. They started planting mangroves. But, with the wave height average of 3 meters, and wave speed of 10 m/s, planting mangroves on the coastline made impossible. A few institutions have tried to plant mangroves, but it turned out to be useless since most seedlings were taken away by the waves.

In early 2015, communities built wave breakers using bricks covered by plastic, and filled with sand taken from the mines on the estuary. This solution also deals with the shallowing of the river bed. The wave breakers took 3 months to be completed, but again, they were not strong enough compared to the waves.

In mid - 2016, hundreds of the wave breakers were found destroyed, damaged, or completely disappeared. After feeling frustrated, they tried to make another wave breakers, but this time using a different approach.

August 2016, dozens of the residents with activists from LPU An-Naba built another wave breakers, but they were made of used tires gathered from automotive clubs in Cikarang and Bekasi. IDR 10,000,000 was prepared and was given by several NGOs. “It’s not much, because we’re self-making them. No money from the government,” Mulyadi, an activist from LPU An-Naba said.

Meanwhile, Bekasi Regent, Neneng Hasanah, argued that abrasion mitigation using wave breakers is the authority of the central government. “But we can’t close our eyes. That’s why we gave out thousands of sacks to tackle Citarum’s flooding,” she told GATRA. She was pesimistic that a wave breaker could work as a permanent solution because it wouldn’t be enough.

Although there was only little support, the residents were still optmistic even if they had to pay for it. After all materials were bought, they went to the beach, together stacked 10 tires as a pole. For it to stand straight, they added a piece of timber in the middle. The lowest tire was cemented to the ground, and the pile was filled with sand.

The sand is still from the river bed. But then, after the stack is completed, the uppermost tire was also cemented. They were still in finishing process, with the target of a 500 m wall done by September.

The next step was, after the wave breakers were finished, everyone planted mangroves on the beach. They used api-api mangrove due to its durability and its strength in dealing with the waves, as well as its relatively short growth time and its roots can form new trees.

Another innovation carried out by the communities is they worked together in dealing with the often disrupted electircuty supply due to severe weather.

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They harvested the wind power to move turbines, which creates electricity. A lighthouse was made and is powered with the wind-powered turbines. Now fishermen don't have to fish in the dark when the electricity is out.

The windmill has been built since 2014. Initiated by a visit of engineering students from the University of Indonesia. They were looking for wind power potential and they found it in Bungin Village. "Here there are only easterly and westerly winds. The velocity could reach 10 m's. No tall trees as well," Basir recalled what the student told him.

In short, the Research Center for Climate Change of the University of Indonesia partnered up with the Tropical Renewable Energy Center, School of Engineering, University of Indonesia; PT. Potenza Putra Makaram and LPU An-Naba to build a 9 meter tall windmill. This windmill is equipped with a permanent magnet generator with 500 watt, 24 VAC 3-phase capacity, and the electricity and control system converts the electricity into 24V DC current, so when a house takes its electricity from the windmill, it has to have an inverter.

One of the Bungin Village windmill initiators, Adi Surjosatyo said, the windmill renewable energy project in Bungin Village, which harvests wind power, is a sustainable project that involves community's participation. The aim is to have the community maintain the windmill, so the electricity can always be enjoyed. Adi is a professor at the University of Indonesia.

It was made possible by creating an MSME and also a 2 story 3 x 6 meter building which serves functions as a MSME center and as a power house. There will be sea produces processing facilities as well as a place for fishermen to sell their catches. Right now, the complex is in construction progress while 3 other windmills are being built. "There will be another 3 windmills, and there will be a solar-powered water desalination facility." This tower is also functioned as abrasion observation center as it is located on the beach.

So it could be sustainable, Bungin Village combines the sociologic aspects with technology. The windmills are well treated, so its energy can move the economy. For example, Basir have started to understand the operation and maintenance of the turbine at the windmill next to his house. Although the windmills in Bungin Village are owned by the University of Indonesia, Basid mentioned that there will be a handover to the local communities.

Unfortunately, development of renewable energy that utilizes windmills is not fully supported by the local govenrment. Even though the acting Director of Environment of the National Development Planning Agency, Wahyuningsih Darajati, said that the government's commitment on renewable energy is stated in the general plans of renewable energy. It is targeted that by the year of 2025, renewable energy sources have contribute to the energy reserve by as much as 23%. That share can be generated from micro hydro plants, windmills, biofuel plants, biomass plants, etc.

"We hope that every region has their own action plan in developing renewable energy sources," she said. The development, will be adapted to each region's needs. For example, a region that produces a lot of palm oil can use palm oil waste as a source of energy.

HARIAN KOMPAS (PRINTED) - FRIDAY, OCTOBER 7th 2016

Reduce Emission by One Giga-tons per Year

IDR 1.6 Trillion Commitments on Peat Restoration Grants

By: J.Galuh Bimantara

Jakarta, Kompas – Indonesia has the potential to curb by 1,022 giga tons of CO_2 per year by protecting 12.9 million hectares of peatland, which is the target of the Peat Restoration Agency (BRG) programs. If made happen, almost all greenhouse gas reduction targets from all sectors will be met.

The World Bank helped the BRG in calculating the estimation. Protecting and keeping the peatlands intact and peat-friendly management to lands with business-concession permit. "Emission Reduction as much as 1 giga tons per year will be Indonesia's contribution to the world," says BRG Head, Nazir Foead, in Jakarta, on Thursday (6/10), after signing an MoU with ICCTF on Climate Change Related Peatland Management and Peat Restoration in Indonesia Fund Management partnerships.

As a country that agreed to the Paris Agreement on Climate Change, Indonesia is committed to reduce 29% of its emission by 2030 self-reliantly, or 41% with international aids. The decrease refers to the unchanged behavior with the baseline of 1.79 giga tons of CO_2. Emission reduction targets forestry, agriculture and peat, energy, waste, and industrial process and its products utilization.

The wild fire of 2015 released 1.1 – 1.6 giga tons of CO_2, according to the data from Ministry of Environment and Forestry, which is the reason of the establishment of the Peat Restoration Agency (BRG). 12.9 million hectares of peatland in 7 provinces is targeted by the BRG, namely Riau, Jambi, South Sumatra, West Kalimantan Central Kalimantan, South Kalimantan, and Papua.

From the 12.9 million hectares of peatland, 6 million hectares is in good condition while the other 6 million has been opened, canalized, and has experienced different levels of degradations. 3.9 million is damaged, both in concession-land and non-concession land. "That's huge. To restore 3.9 million hectares require hard works, and a lot of money," he said.

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Funding

BRG and ICCTF partnership is meant to improve funding in peat restoration efforts, since the ICCTF is a government agency to encourage and channel domestic resources and international funding to climate change adaptation and mitigation projects.

Nazir mentioned, the total of committed grants received from the donors, including thouse through ICCTF, to be managed by the BRG is as much as USD 125 million (IDR 1.6 Trillion) for the next three years, received from several countries such as Norway, United States, United Kingdom, Germany, and Japan. Other countries have shown interest in funding, but haven't mentioned any figures yet.

Deputy of Maritime Affairs and Natural Resources of the Ministry of National Development Planning, who is also in the ICCTF Trustee Board, Gellwynn Jusuf, asked for funding to be utilized to push the greenhouse gas emission. But, he also asked for the peat management shall not interfere with economic growth.

AHLOO.COM - WEDNESDAY, NOVEMBER 16th 2016

http://update.ahloo.com/2016/11/17/pengurangan-emisi-karbon-terintegrasi/

Carbon Emission Reduction Efforts Must be Integrated

By: Vicharius Dian Jiwa

Ahloo.com, Maroko – Minister of National Development Planning/ Head of the National Development Planning Agency (Bappenas), Bambang Bodjonegoro was not hesitated when he mentioned Indonesia as a country that has one of the strongest commitments in reducing carbon emission. The carbon emission reduction target is included in the short-term targets that can be found in the 2015 – 2019 Short to Medium Term Plans (RPJM).

But, he thinks that carbon emission reduction efforts cannot run on its own, It has to be integrated with another aspects that influence it such as the welfare of the people and also the infrastructures. Bambang explained that many Indonesians still rely on natural resources and forest produces exploitations. Most of them still live under poverty. Furthermore, the lacking renewable energy infrastructures gives another challenge. To fulfill energy demands, whether for electricity or transportation purposes Indonesians are still heavily relied on fossil energy sources.

If we only think about the emission reduction targets then it will cause imbalance on the infrastructure and welfare. Therefore, Bambang insisted that in Bappenas' perspective, the key of success is to keep those things in balance.

"We will not prioritize one above the others. Everything go hands in hands." Bambang

said during his speech at the Global Landscapes Forum with the theme of New Climate and Development Agenda at the Kenzi Club Agdal Median, Marrakesh, Morocco, and Wednesday (16/11) local time.

In order to achieve the goals, Bambang encourages the involvement of the private sectors, domestic or international. Involvement of the local governments and their institutions at the local level, also the involvement of the local communities. This is necessary because all programs related to emission reduction need to be integrated between a sector and the others.

Take the biomass development program for example. Currently, CPO has the highest biomass progress, the government is planning to build a sustainable palm oil processing project. This program requires well preparedness of the government so it wouldn't backfire in carbon emission reduction efforts. As we all know, land clearings in the forest for CPO plantations have always been thought as the cause of forest fires and the high national carbon production emission. "The government wants to create a biomass program from CPO that doesn not degrade the soil. The point is, this model has to be sustainable."

Land procurement is not only meant to be done for CPO biomass development, but also geothermal electricity development. For your information, most of Indonesia's geothermal potential lies in the protected forest areas. It means the central government has to create a good coordination between them and the local government in issuing permits to allow forest area exploitation.

To boost government's targets, as well as self-reliance, Indonesia is still waiting for International supports and commitments in providing the much needed funds according to the Paris Agreement on last year's COP21. Support can be given through private sectors or through the ICCTF, a non-profit body under the Ministry of National Development Planning/ National Development Planning Agency.

Since 2009, ICCTF has managed USD 24 million worth of funds to finance 61 projects related to mitigation activities, adaptation, and energy in 17 provinces in Indonesia, In the future, such activities are expected to be increasing to reach the carbon emission reduction targets in Indonesia faster.

MEDIA INDONESIA (PRINTED AND ONLINE) - SATURDAY, NOVEMBER 26th 2016 | 05:45 WIB

http://mediaindonesia.com/news/read/79449/air-terjangkau-dengan-tenaga-surya/2016-11-26

Affordable Water with Solar Power

By: Ardi Teristi Hardi

(Countinue to page 108)

Jejak Hijau Media Indonesia, Gunungkidul – Suyamto's face looked happy that afternoon. He became the representative from Banyumeneng II Community, Giriharjo Village, Panggang Distict, Gunungkidul, and he made a speech on the ceremony for the newly made solar-powered water removal system for his community.

With such system, people living in his community will have easier access to clean water. Now they don't have to walk for kilometers just to get clean water. "Before this program, people used to walk from their house to Kaligede, around 2 kilometers away," he said on Monday (21/11).

With the solar-powered water removal system, now they just have to walk for a few meters to the reservoirs, they can now save money too. People used to have to pay IDR 120 thousand per 5,000 liters of water, now not anymore.

Now everyone has to pay only IDR 7,500 per meter cubic of water. Which means, 5,000 liters of water costs only IDR 37,000. Suyamto said the fee is charged for 2 needs, maintenance and workers salary.

"Every month it will be summed upm and 50% of the total will be given to the workers, and the other 50% is for maintenance purposes, such as piping, electricity, or pumps should such damages happen."

No Batteries Needed

President Director of the EnerBI foundation, Dinar Ari Prasetyo, explained that the water removal system is an improvement to the previous system.

This time, another 40 households are enjoying clean water. 170 households live in that community.

The system used this time is an 8,000 Wp solar panel as the power source for the two submersible water pumps used to distribute clean water.

Water is removed by the two solar-powered pumps to the main reservoir which has the capacity of 5,000 liters. The main reservoir sits on the highest point in the community. That way, water can be easily distributed to 5 community reservoirs with the capacity of 2,000 liters each.

This system was made without using batteries on purpose, so then the pumps can run automatically when sunlight is present. Only 1.4 kilowatt is needed to power up the pumps. Which means, around 6.30 am the pumps are already starting up. This system is capable of removing 10 kiloliters of water every day.

The power of the pumps, the amount of removed water, as well as water availability at the reservoirs can be observed through the built-in German made application.

Since 2009

Dinar said that the water removal projects using solar power was started in 2009 when there was a group of students from University of Gadjah Mada visiting the community in order to do group research. At that time, a pilot project for 30 households to enjoy clean water was commenced. After the success and a good response from the communities, that project has kept on going until today.

Erwin Widodo ICCTF Executive Director, as the grantor of this project, appreciated the solar-powered water removal system in Banyumeneng.

“Many projects that involve solar panels have failed due to the inability of the community in maintaining the facilities.” Aris Eko Widyanto, Head of Giriharjo Village, hopes that the system can forever run. When the daily needs are fulfilled, the water is expected to irrigate communities’ farms. Positive feedback was also given by Agus Puji Prasetyono, a relevance and productivity expert staff in the Ministry of Research, Technology, and Higher Educations, to this solar-powered water removal system.

“This should be supported so it can be bigger, and in line with the existing national energy general plans.” Suyamto said that he and the people living in other communities have understood the importance of preserving the system.

“since the beginning we have been involved in the construction process by providing labor, while the technical is provided by EnerBI.” They are ready for the implementations of take-turns water distribution system during the dry season from August to October.

MONGABAY.CO.ID - NOVEMBER 27th 2016
http://www.mongabay.co.id/2016/11/27/warga-desa-ini-pompa-air-pakai-energi-surya/

This Village Pump the Water Using Solar Cell

By: Nuswantoro

Sudaryanto can now smile. Because now, the residents of RT 04, RW 02, Banyumeneng II, Giriharjo Village, Panggang District, Gunungkidul, can save money on clean water budget.

Now he can easily get clean water with just a few meter walks from his house. Sudaryanto attended the ceremony of the newly made solar-powered water removal system on Monday (21/11/16). “I used to have to walk for two kilometers just to get clean water, or I can buy clean water for IDR 120,000 for a tank, or IDR 1,000 for a small container.” This man makes a living by selling limestone, timber, and palawija.

To prevent water shortages, residents of Giriharjo built a rain water reservoir. During the dry season, everyone has to walk far

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to get clean water right from the spring, Walking uphill and downhill.

Giriharjo village is made up of rocky karst mountains. Teak, sonokeling, mahogany, and acacia trees cover the landscape. With the population of 5,000 people, most of them rely on palawija plants that also relies on rainfalls.

There are three springs in Giriharjo, one of them is Kali Gedhe, pumped by solar power.

Head of the Banyumeneng II Community Clean Water Management Organisation, Suyapto, said that after the project was finished, everyone only spent a third of what they used to spend on water.

“All users are required to pay IDR 7,500 per cubic meter of water. Let’s say in a month you use 5 cubic meters, then you’ll only have to pay IDR 37,500. That money is used for maintenance purposes, shall there be a leaked pipes, broken pumps, etc.”

The solar-powered water pump system was funded by ICCTF, which is the continuation of the previous projects.

“This series of program have been started since 2009, when some students did field studies and built one in Banyumeneng I, then it became a pilot project for water removal systems for 30 households,” says Dinar Arif Prasetyo, the president director of the EnerBI Foundation.

In 2014, a grant from Alstom for 90 households in Banyumeneng I, and then for 40 households in Banyumeneng II in 2015. And then another addition of 40 – 50 households in 2016 received grants from ICCTF. In total, there are 160 households covered by this system.

Water Shortage Solution

Gunungkidul District Expert Staff, Khaerudin said clean water is a big challenge in his district due to its vast area, and communities are spread in all directions.

This District is made up of Karst Mountains and has five underwater river systems. Special technology is needed to bring the water to the ground.

He said, there are five clean water infiltration systems in Gunungkidul, which are piping, rural clean water, water dropping, and rainwater harvesting, as well as environmental preservations.

“Hopefully this could end the difficulties of accessing clean water. People don’t have to walk anymore to get clean water,” says Bayu Haryana, an expert staff at the governor’s office.

Relevance and Productivity expert staff in the Ministry of Research, Technology, and Higher Educations, Agus Puji Prasetyono said, the project in Giliharjo Village is in line with government’s commitment and determination in using green energy, in accordance to the national energy general plan.

Erwin Widodo, ICCTF Executive Director, appreciated community’s role especially the Head of the Village in the smooth construction process of solar energy harvesting project which often fails in other places. In Banyumeneng, he said, could work and is now sustainable thanks to the solidarity of the community and the village officials.

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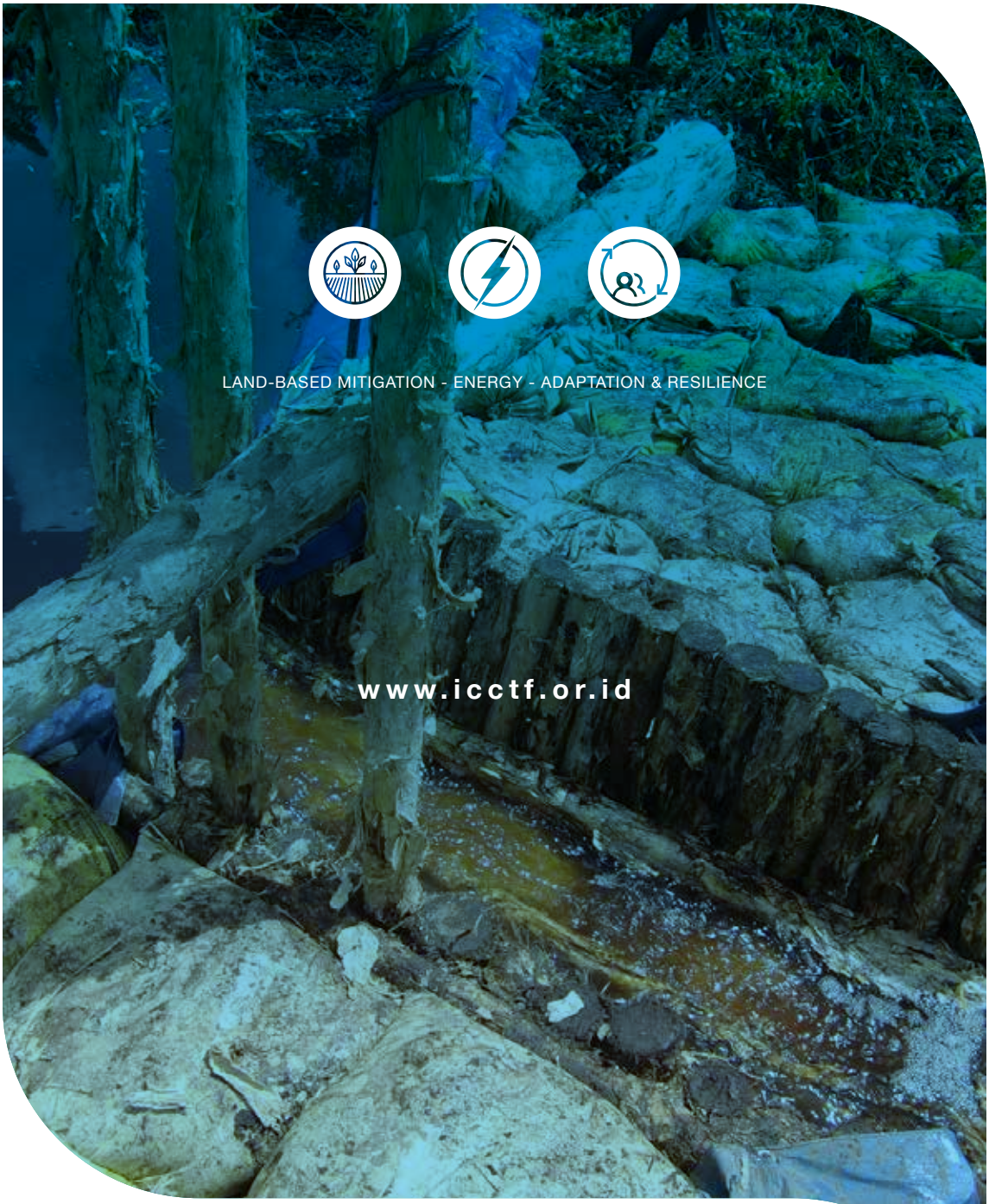

LAND-BASED MITIGATION - ENERGY - ADAPTATION & RESILIENCE

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