

# **MICROHYDRO POWER GENERATION**

for Community Based Social Business  
Development in Indonesia

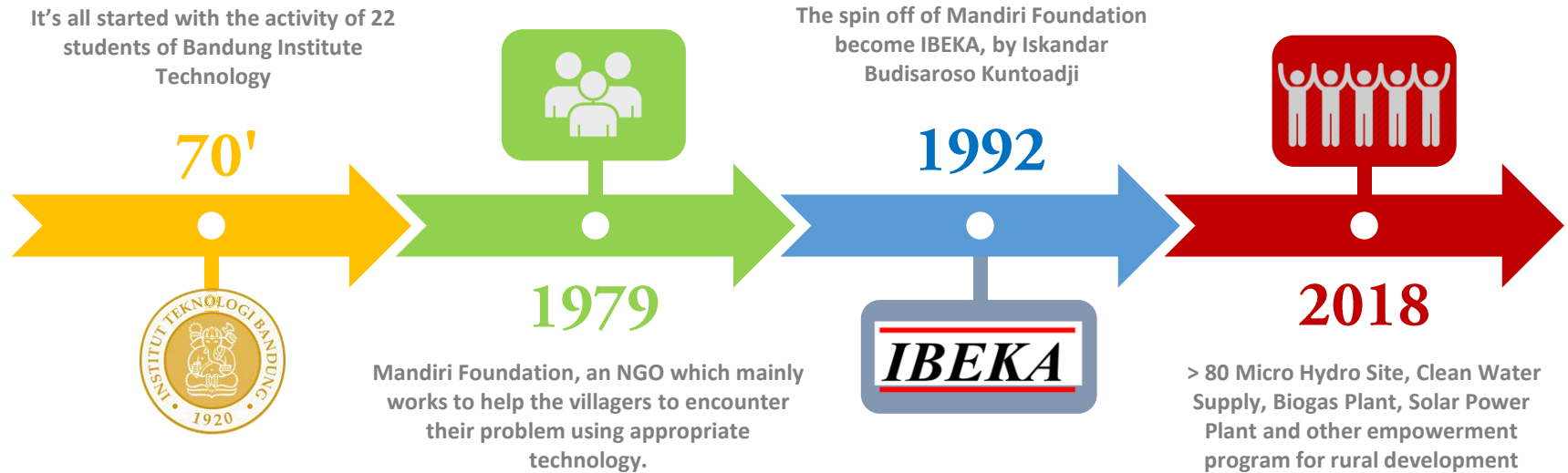
**TRI MUMPUNI ISKANDAR**

**INTERNATIONAL CONFERENCE**

**“SDGs × APPROPRIATE TECHNOLOGY × ASIA**

**- COMPREHENSIVE FRAMEWORK on APPROPRIATE TECHNOLOGY –”**

## ABOUT US



## MAIN ACTIVITIES

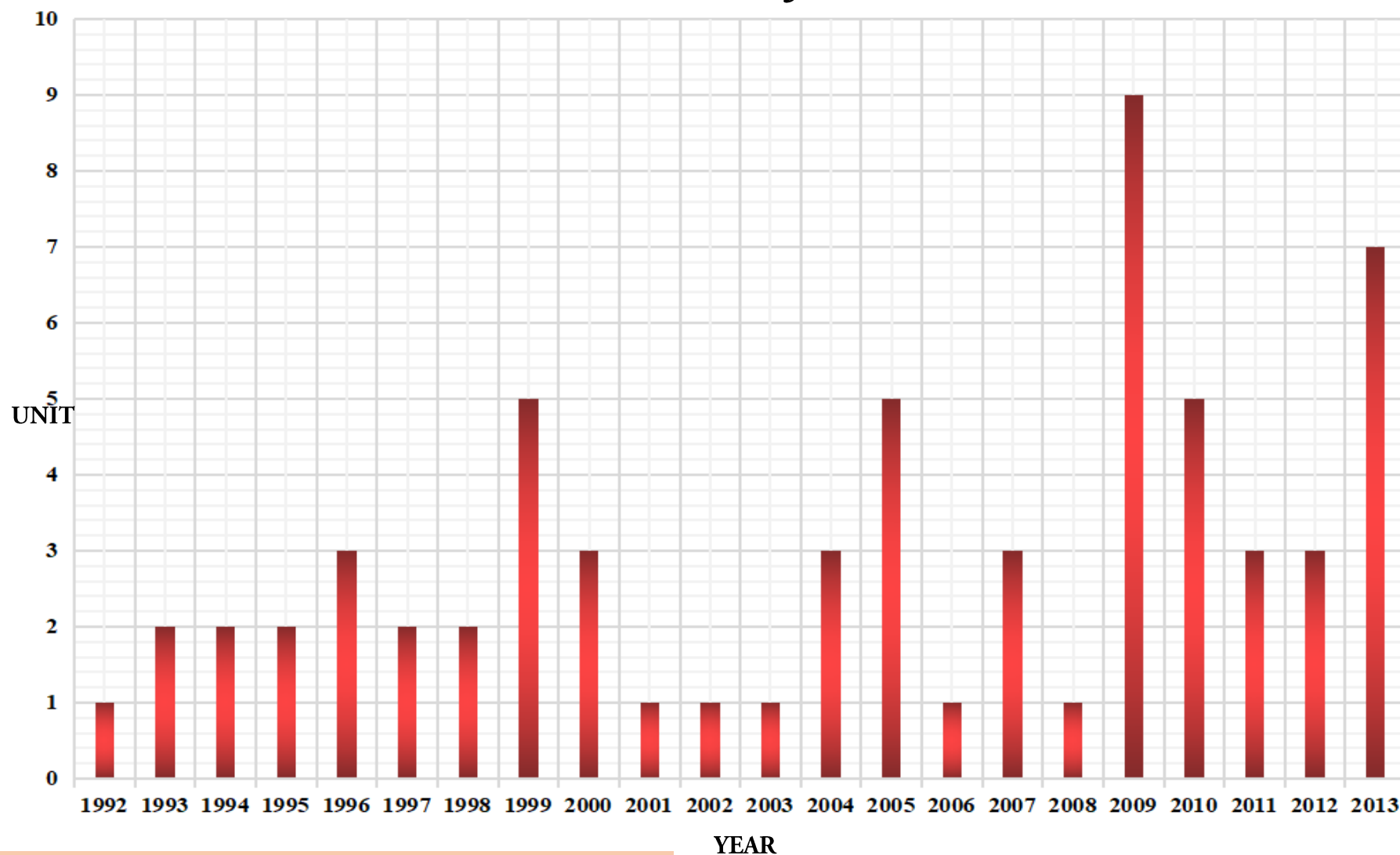
- ❖ Rural Electrification with Renewable Energy
- ❖ Rural Economic Development and Environmental Conservation
- ❖ Renewable Energy Implementation
- ❖ Woman Empowerment and Child Education
- ❖ Post Harvest Processing and Organic Farming
- ❖ Building Infrastructure for Village Development
- ❖ Research on Renewable Energy Resources
- ❖ Developing and Training related to Mini/Micro Hydro Activities
- ❖ Creating Economic Activity for Rural Areas
- ❖ Patriot Negeri: train and deploy young engineers or scholars to remote area of Indonesia for one year to support village development in many sectors.
- ❖ Receiving the interns from domestic and overseas students to work and doing research together in IBEKA site
- ❖ Make collaboration research and implement jointly project with domestic and overseas organization

## OUR GOALS

- ❖ Develop renewable energy programs that prioritize the benefit of the community and positively impact its self-reliance, as well as its socio economic and environmental issues.
- ❖ Support the wider adoption of renewable energy utilization, especially small-scale hydro power for local equity building.
- ❖ Promote rural social entrepreneurship to benefit the local community and local economic diversity.



## **IBEKA PROJECT**



Mini/Micro/Pico HP	: 71 Units
Clean Water Supply	: 3 Units
Solar PV System	: 6 Units
Cows Fattening and Biogas Plant	: 1 Unit



## PROJECT LOCATIONS

ACEH	
PROJECT	YEAR
MHP 40 kW Krueng Kalla Lhoong	2006
MHP 40 kW Jambur Gele Gayo Lue	2008
MHP 180 kW Aih Nuso Gayo Lues	2009

NORTH SUMATERA	
PROJECT	YEAR
MHP 29 kW Lintong	2005

EAST KALIMANTAN	
PROJECT	YEAR
MHP 60 kW Long Bang	2010

WEST SUMATERA	
PROJECT	YEAR
MHP 30 kW Suliki Solok	1995
MHP 30 kW Simanau Solok	1996
MHP 35 kW Batu Bejanjang Solok	1997

BENGKULU	
PROJECT	YEAR
MHP 31 kW Sukaramai Segitim	2000

SOUTH SUMATERA	
PROJECT	YEAR
MHP 30 kW Suliki Solok	1995
MHP 30 kW Simanau Solok	1996
MHP 35 kW Batu Bejanjang Solok	1997
MHP 23 kW Sipin	2004
MHP 30 kW Rimba Candi	2005
MHP 10 kW Tanjung Harapan	2005
MHP 224 kW Ulu Danau	2005

BANTEN	
PROJECT	YEAR
MHP 10 kW Palanggaran Lebak	2005

D.I. YOGYAKARTA	
PROJECT	YEAR
Cows Fattening and Biogas Plant	2007

CENTRAL JAVA	
PROJECT	YEAR
MHP 170 kW Banyu Riru Semarang	2010

SOUTH SULAWESI	
PROJECT	YEAR
MHP 60 kW Sa'da Uluaslu Toraja	1996
MHP 46 kW Ta'ba Toraja	1999
MHP 64 kW Tondan Dua Toraja	1999
MHP 13 kW Bokin Toraja	1999
MHP 39 kW Masanda Toraja	2003
MHP 80 kW Buntling Enrekang	2007

WEST JAVA	
PROJECT	YEAR
MHP 12 kW Curug Agung Subang	1992
MHP 20 kW Cibitung Subang	1993
MHP 16 kW Cikalong Subang	1993
MHP 40 kW Padasuka Cianjur	1994
MHP 20 kW Prabugantungan Lebak	1994
MHP 30 kW Cupunagara Subang	1995
MHP 20 kW Bantassari Subang	1996
MHP 60 kW Cicemur Sukabumi	1997
MHP 5 kW Citalahab Bogor	1998
MHP 85 kW Ciganas Sukabumi	1998
MHP 5 kW Cikamiki Bogor	2000
MHP 34 kW Lewijamang Bogor	2002
MHP 33 kW Ciasima	2004
MHP 120 kW Ciata Meikar	2004
Community Based Water Saving Bekasi	2007
MHP 5kW Kampung Sawah Lebak	2009
MHP 5 kW Kampung Cibadak Lebak	2009
MHP 5 kW Bojong Cisonek Lebak	2009
MHP 5 kW Cigugur Sukabumi	2009
MHP 5 kW Ciasim Cisolok	2009

WEST JAVA	
PROJECT	YEAR
MHP 5 kW Leuwe Gedo Lebak	2009
MHP 5 kW Cisuren Basah Sukabumi	2009
MHP 5 kW Cisuren Tengah Sukabumi	2009
MHP 5 kW Cenglik Sukabumi	2010
MHP 0.5 kW Cisuren Atas I	2010
PHP 0.6 kW Cisuren Atas II	2010
PHP 0.7 kW Cisuren Atas III	2010
PHP 0.8 kW Cisuren Atas IV	2010
PHP 0.5 kW Cenglik Babakan	2010
PHP 0.5 kW Cinala Sukabumi	2010
PHP 0.7 kW Lebak Kiri Sukabumi	2010
PHP 0.8 kW Pangkalan	2010
PHP 0.9 kW Bambu Kuning	2010
PHP 0.5 kW Cilarang Sukabumi	2011
MHP 12.7 kW Curug Dayat Cianjur	2011
MHP 6.4 kW Suka Mulya Sukabumi	2012
MHP 50 kW Mandiri Sukabumi	2012
MHP 100 kW Ciganas Sukabumi	2012
MHP 36 kW Cipragelag Sukabumi	2014

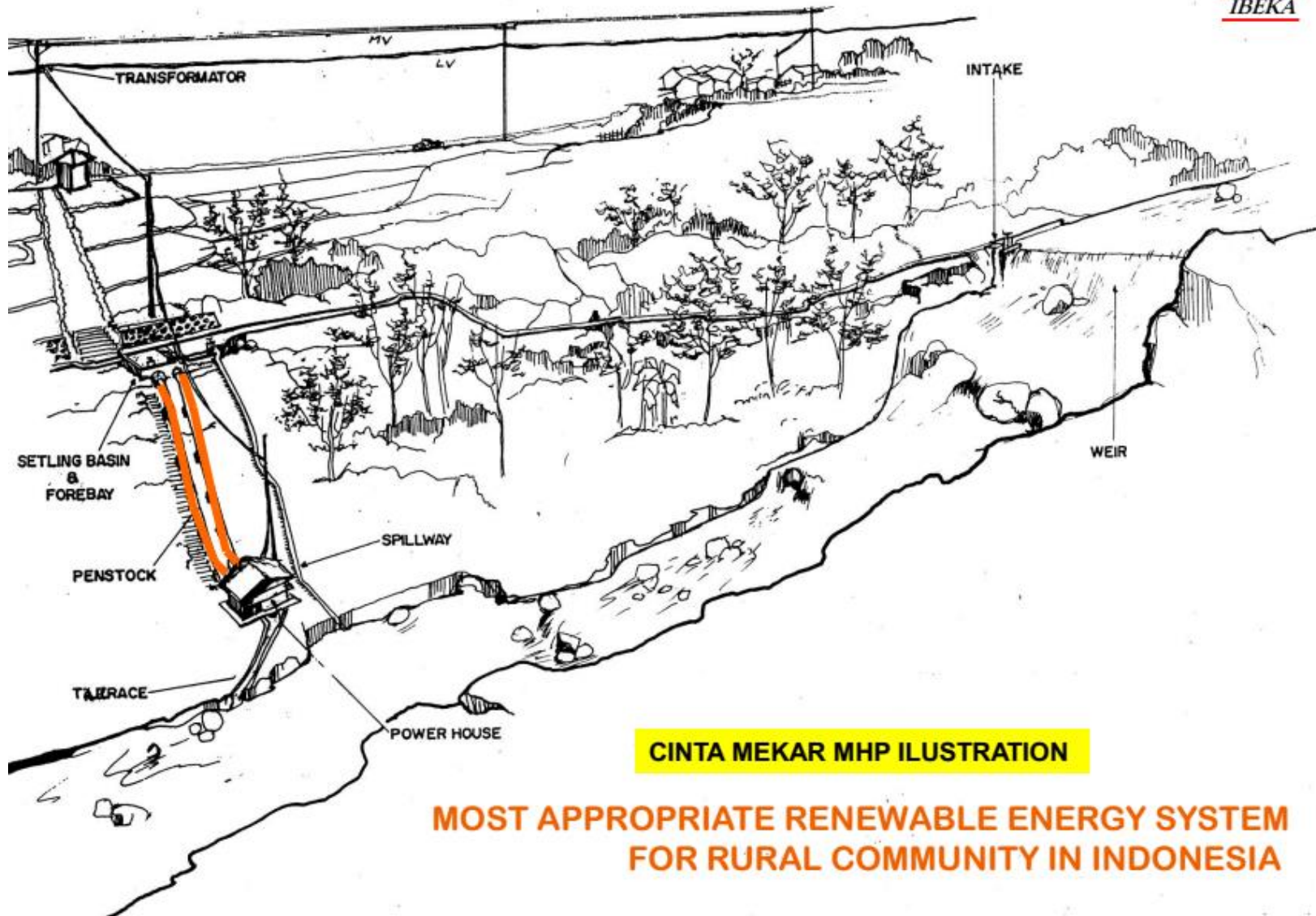
WEST NUSA TENGGARA	
PROJECT	YEAR
MHP 50 kW Kukuasan Lombok	2000

EAST JAVA	
PROJECT	YEAR
Solar PV On Grid System 15 kW for Lah Malang	2018
Solar PV On Grid System 30 kW for Pangas Madura	2018

EAST NUSA TENGGARA	
PROJECT	YEAR
MHP 15 kW Wailosawa	1999
Clean Water Supply Kamanggih	1999
Wind Turbine 12 kW Kalih Kamanggih	2013
Wind Turbine 11.5 kW Palindi Kamanggih	2013
Wind Turbine 24 kW Tana Rara Moubokul	2014
Wind Turbine 2.5 kW Kilimbatu Kamanggih	2014
Clean Water Supply Umbu Rundi	2015
Bridge Infrastructure Laimbonga	2015
MHP 95 kW Kalilang	2018
MHP 65 kW Kamanjara	2018

TIMOR LESTE	
PROJECT	YEAR
MHP 20 kW Maulo-Mannao	2010
Solar PV System for Aquaponics Public School Lautem	2016
Solar PV Pumping Irrigation System Daudere	2016
Solar PV System for Aquaponics Uai Oil Health Post	2016
Solar PV System for Aquaponics Epitipe	2016
Solar PV System for Aquaponics Upper Com Lautem	2016
Solar PV System for Aquaponics Lower Com Lautem	2016





CINTA MEKAR MHP ILUSTRATION

**MOST APPROPRIATE RENEWABLE ENERGY SYSTEM  
FOR RURAL COMMUNITY IN INDONESIA**

**a TECHNO-ANTHROPOLOGIC**  
**approach for**  
**SOCIO-ECONOMIC changes**

**Philosophy of Indigenous-Led Rural Development**





a SUSTAINABILITY of  
a TECHNO-ANTHROPOLOGIC PROGRAMS  
for SOCIO-ECONOMIC CHANGES  
can only be done by  
CAPTURING the LOCAL COMMUNITY  
PASSION, ENERGY and IMAGINATION

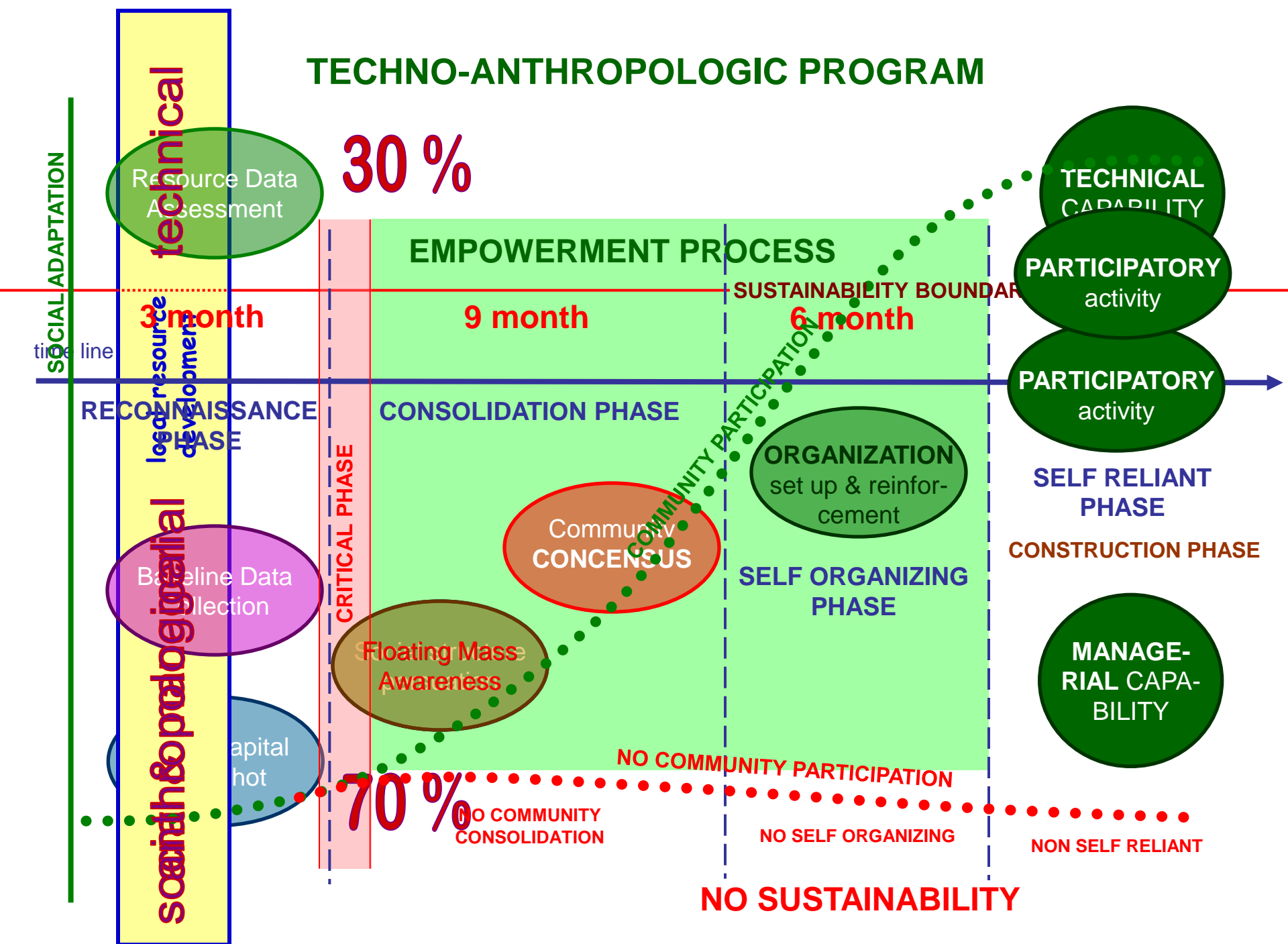


# TECHNO-ANTHROPOLOGIC PROGRAMS

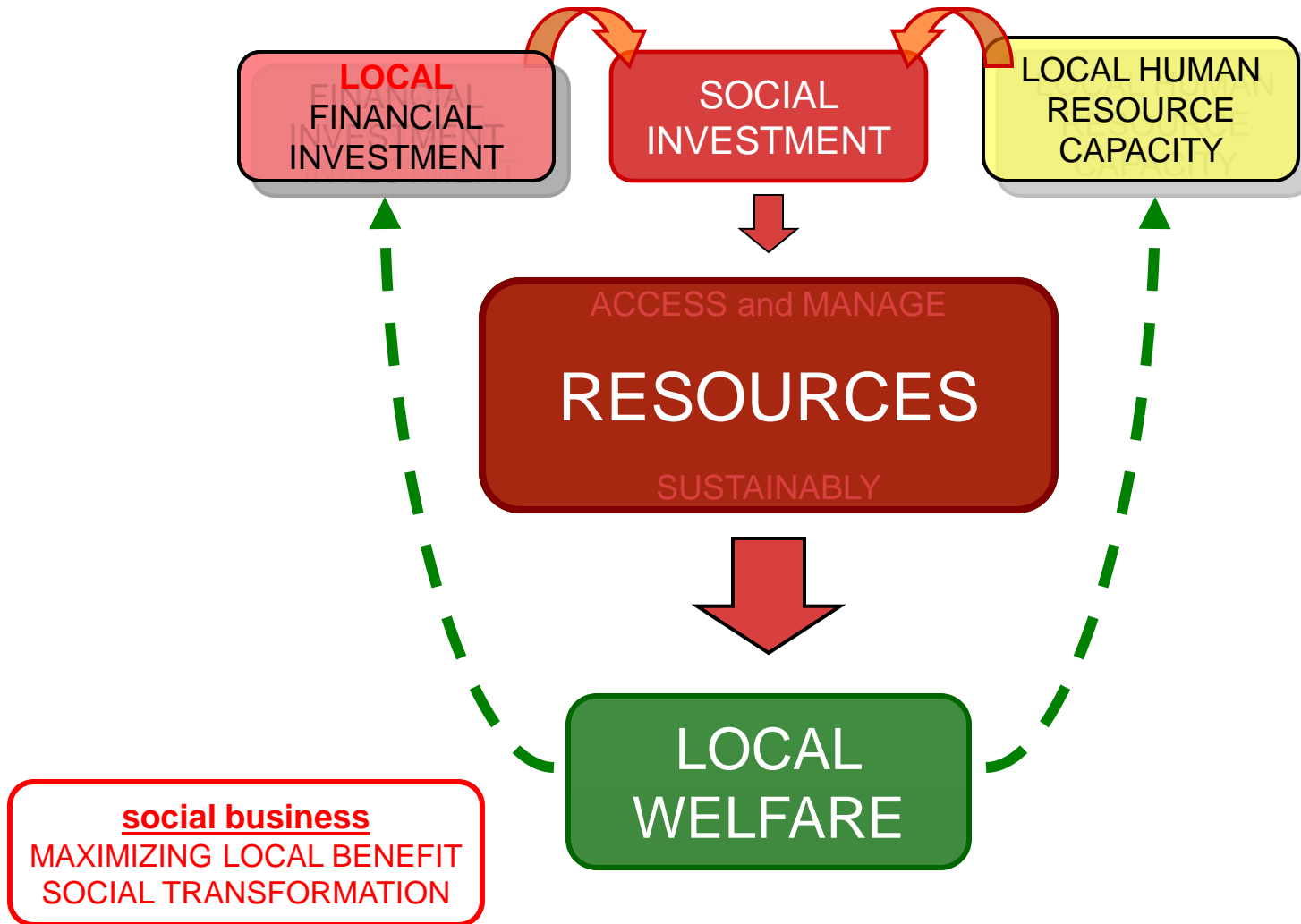
CAPTURING  
LOCAL COMMUNITY  
PASSION, ENERGY  
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**CAPTURING the LOCAL COMMUNITY  
PASSION, ENERGY and IMAGINATION**

# TECHNO-ANTHROPOLOGIC PROGRAM



## COMMUNITY BASED DEVELOPMENT (social business approach)



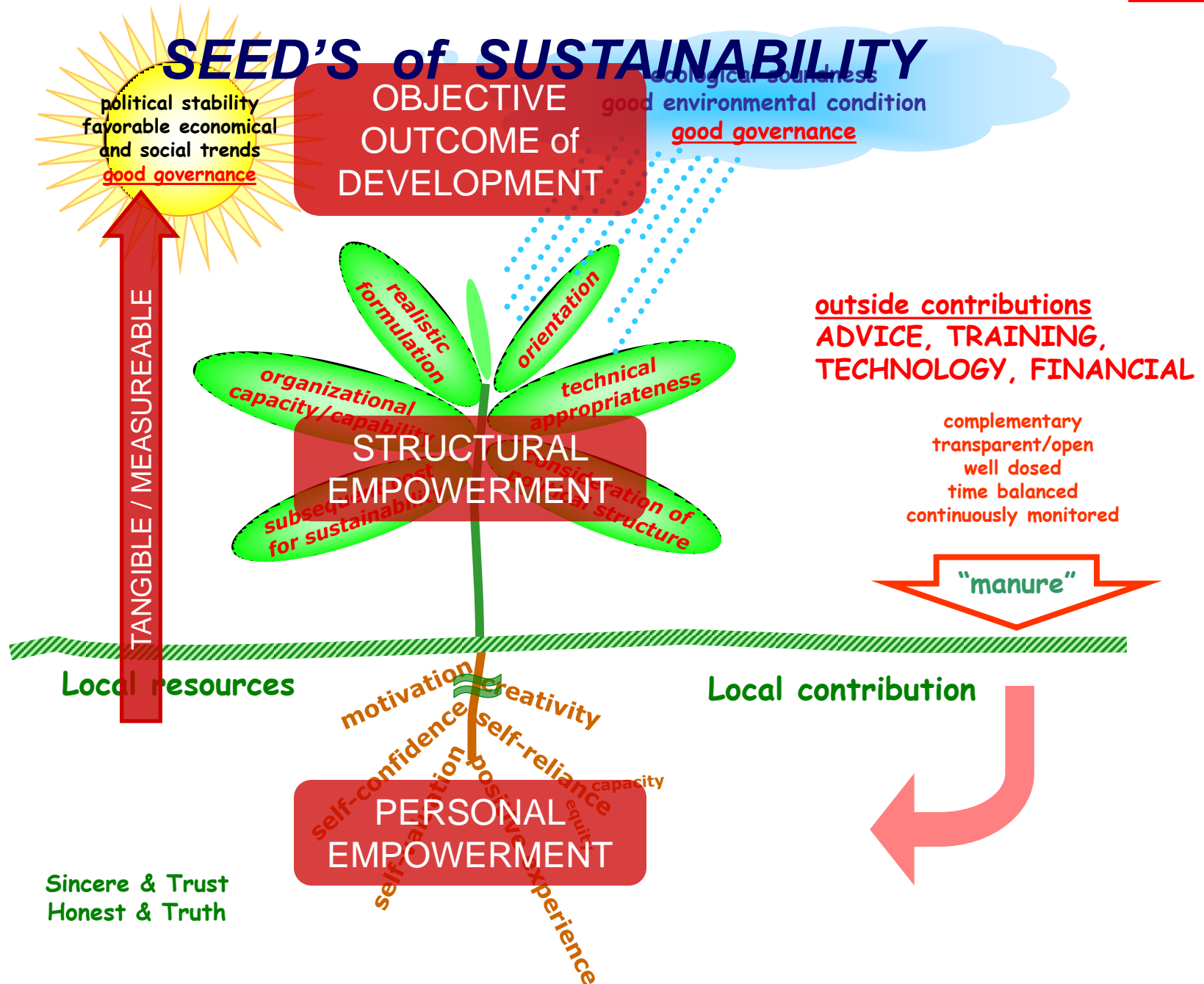
## PARADIGM AND BASIC PRINCIPLES for COMMUNITY BASED DEVELOPMENT / SOCIAL BUSINESS MODEL





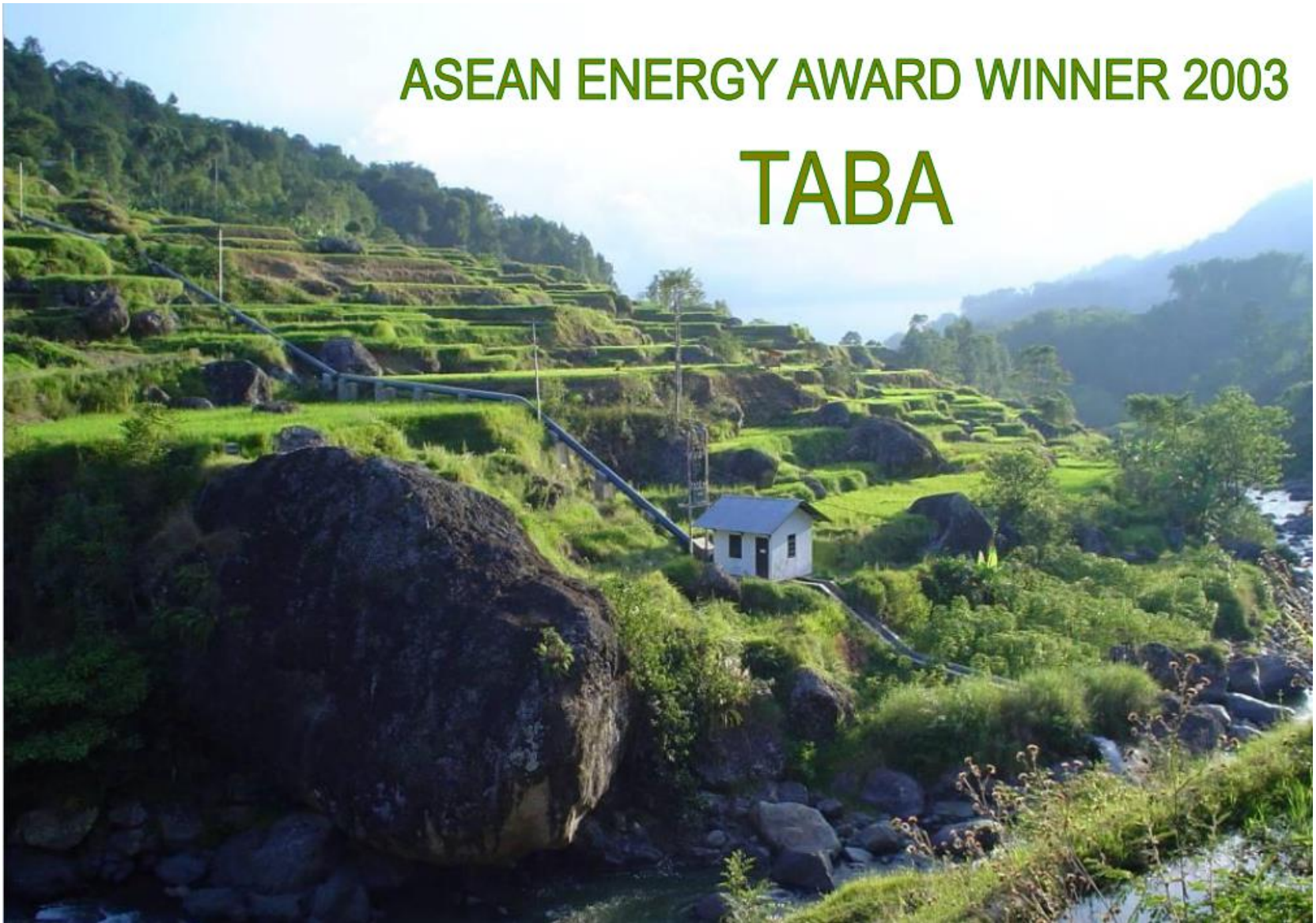
# SEED'S of SUSTAINABILITY

EMPOWERMENT PRINCIPLES



ASEAN ENERGY AWARD WINNER 2003

TABA















**INISIATIF BISNIS dan EKONOMI KERAKYATAN**  
PEOPLE CENTERED ECONOMIC and BUSINESS INITIATIVE