



UNIVERSITAS GADJAH MADA



Country Action on ESD for Youth, Student and Community

System: Learning, Doing, Problem Solving, Based Community, Sustainable, Evaluating, , Continues improving, Learning.....

Dr.-Ing. Ir. Agus Maryono and
IRRM Network Members
(Administrator/Coordinator IRRM)

General Echo Workshop UGM Indonesia



ESD TEAM INDONESIA



Group photo session at the beginning of workshop activities at Day 1

Working Together for ESD



The participants along with the speakers holding their hands together showing their commitment to succeed the Global Goals started from their institutions

Making Action Plan



The participants are presenting the action plan

Recomendations

Recommendation

This General Echo Workshop needs to be regularly conducted and need to be followed by affirmative actions. A lot of the participants are excited to continue learning about Education for Sustainable Development. Some of them are even admitting that the facilitators of this workshop have opened their eyes to be more aware of Sustainable Development Goals. Most of them suggested that workshop like this should be done periodically to see an evaluate the progress of the participants as they are all come from a different institution. As this is the first time for us in conducting the workshop, we believe that there are still a lot of things that need to be fixed and improved. It is hoped that in the next event, there will be practical activities that more real to be executed by the participants and implement things they learn from the field trip in the class sections so that the class can be more alive and vibrant.

Supporting the Global Actions- UNESCO on ESD

- Local Action
- District Action
- Province Action
- Country Action
- Regional Action
- Global Action



National Issues

- Water

- Food

- Energy

- Culture

Water is Crosscutting Issue

- Water
→ Life

- Water
→ Energy

- Water →
Food

- Water
→ Culture

Water → Central Issues for ESD

- River



- River
Restoration

- Rain

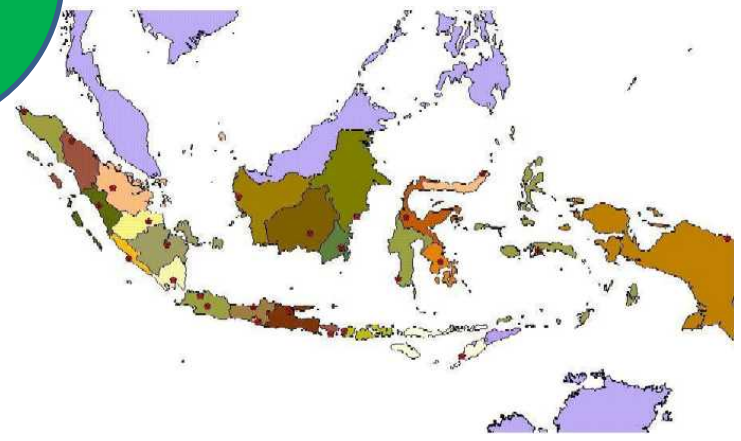


- Rain Water
Harvesting

Way River and Rain..?



Our
Life



But,



River

Settlements
move Closer
and Closer to
the Rivers

People Treat Rivers as a Waste Disposal



Panumpu, Makassar, Desember, 2004

Unused Rainwater (3000 mm/year)



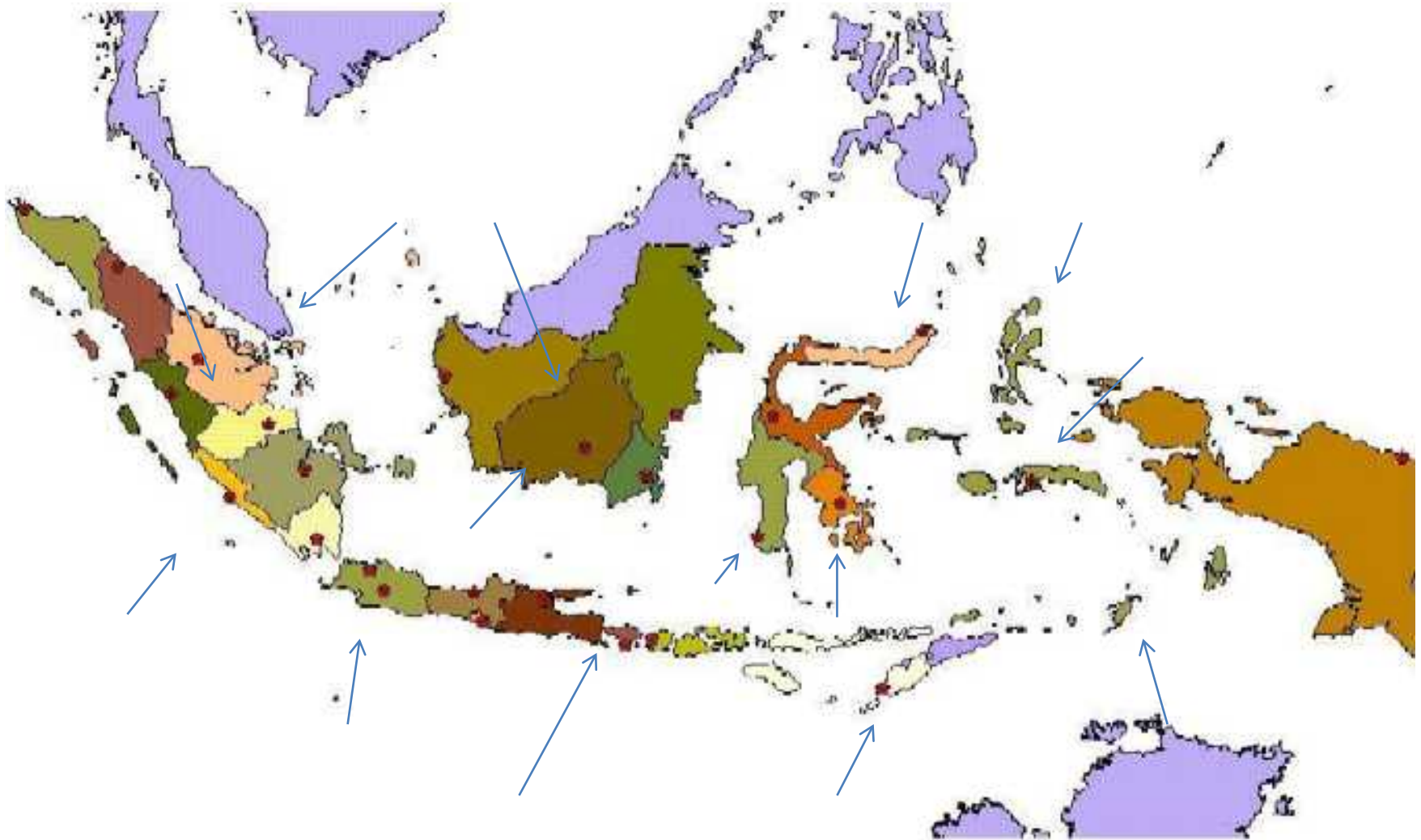
Drinking Water Scarcity



Floods



The Problems of almost all Rivers in Indonesian Cities



How is the best way to Act..?

- Program



- Less spirit,
regular, limited
with Ending

- Movement



- **High spirit, continues
improv., every body and
group can take part, self
initiative-responsible,
unlimited ect.**

Who/what is the Key Stakeholder..?

- **UNIVERSITIES**

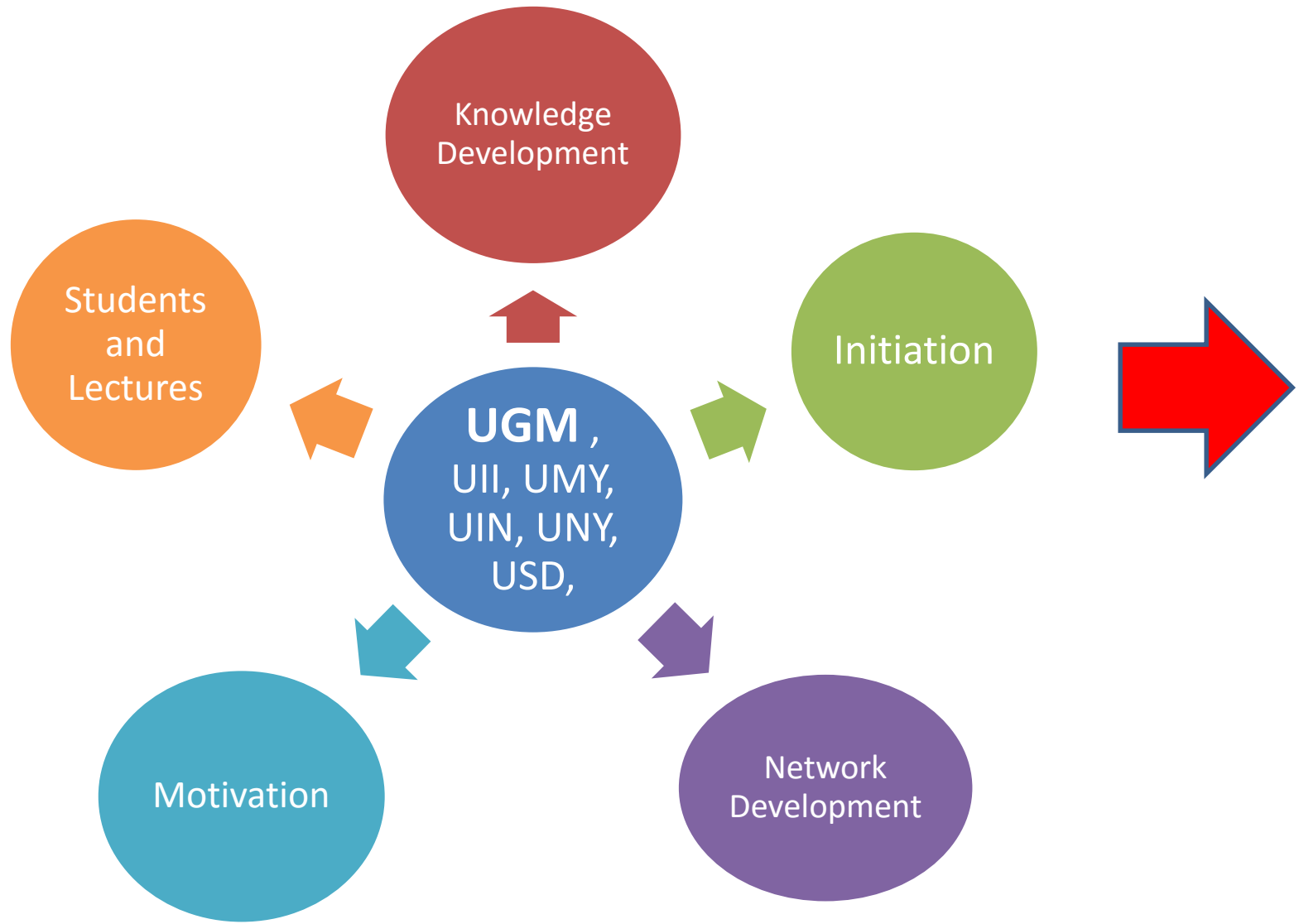
- **COMMUNITIES**

- **NATIONAL and LOCAL GOVERNMENTS**

- **PRIVATE SECTORES**



What University has..?



Community Services in UGM, UIN, UNY, USD, UMY

- Student
Community
Services

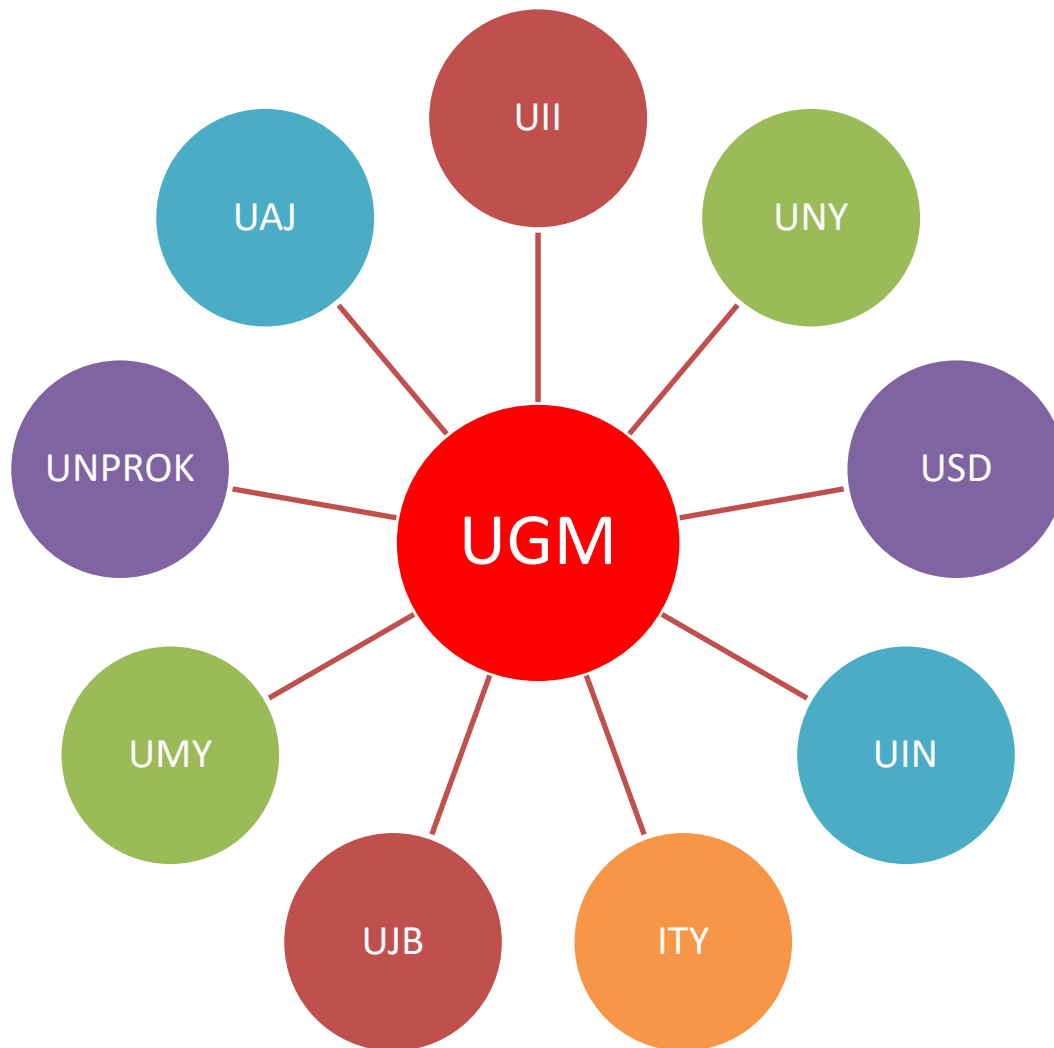
- Lecturer
Community
Services

- Study Program
Community
Services

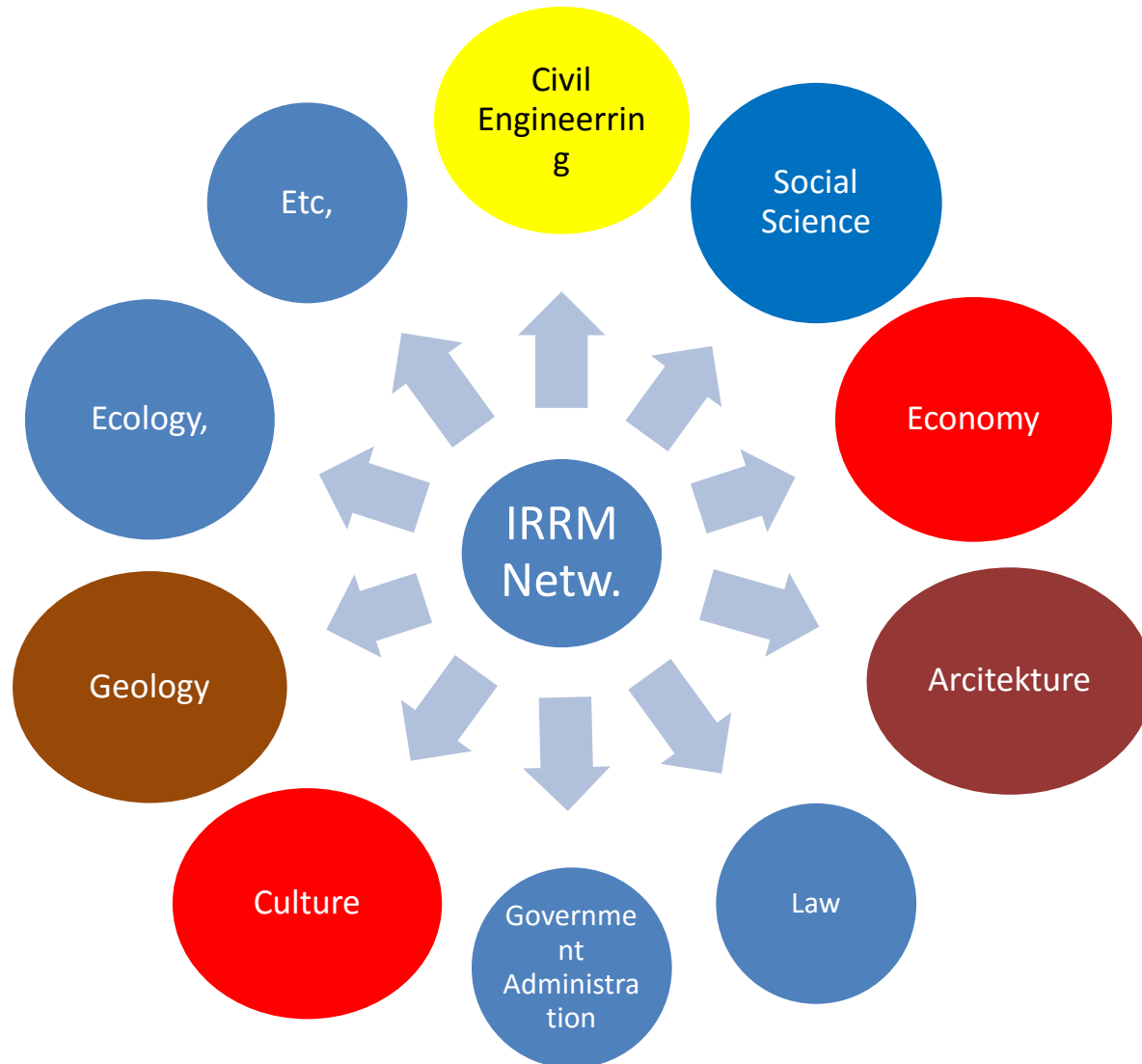
- Study center
community
Services

Start the River Restoration
Movement and Rainwater
Harvesting Movement

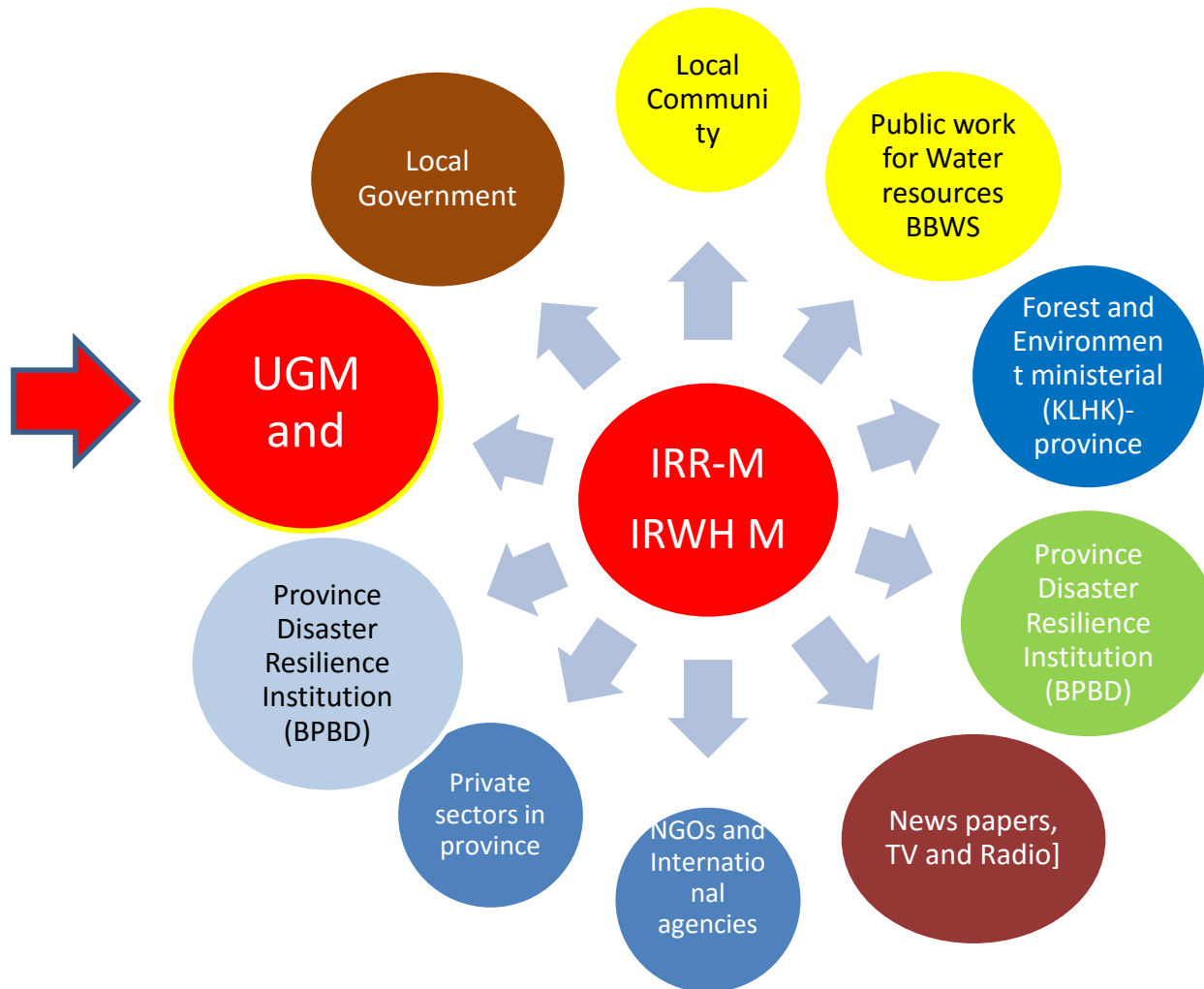
UGM as Initiator of the Movement



Involve all Knowledges, Student and Experts



Network Development



Working with Community ---RESTORATION MOVEMENT

Development of River Communities

(2001 - Now)



Komunitas Peduli
Code (**KOMPAC**)
Blunyah gede Sinduadi
2004

Komunitas
Sayidan
Prawirodirjan –Kota
2004

Forum Komunikasi
Code Selatan (FMCS)
Brontokusuman-Kota
2004

Komunitas Boyong

Selatan – Plemburan Sleman
2008

FMCU :
Forum Masy. Code Utara
Jetis –Terban Kota - 2001

Komunitas
Romo Mangun
Kotabaru – Kota - 2000

Gerakan Cinta Code
Keparakan – Kota - 2000



2010 ---PEMERTI KALI CODE
(CODE COMMUNITY YOGYAKARTA 2008)

deklarasi pemerti kali code.mp4

Working Together Regularly to Clean up the River



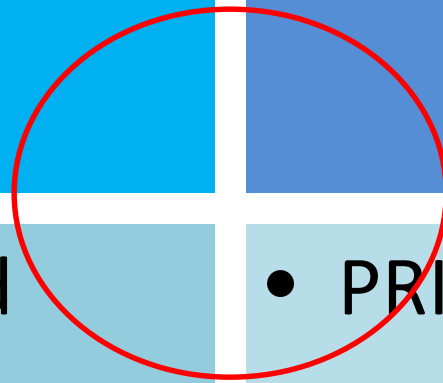
Who/what is the Key Stakeholder..?

- **UNIVERSITIES**

- COMMUNITIES

- NATIONAL and
LOCAL
GOVERNMENTS

- PRIVATE SECTORES



E-Communication Approach

→ fast and cheap



Whatsapp

YOUTUBE

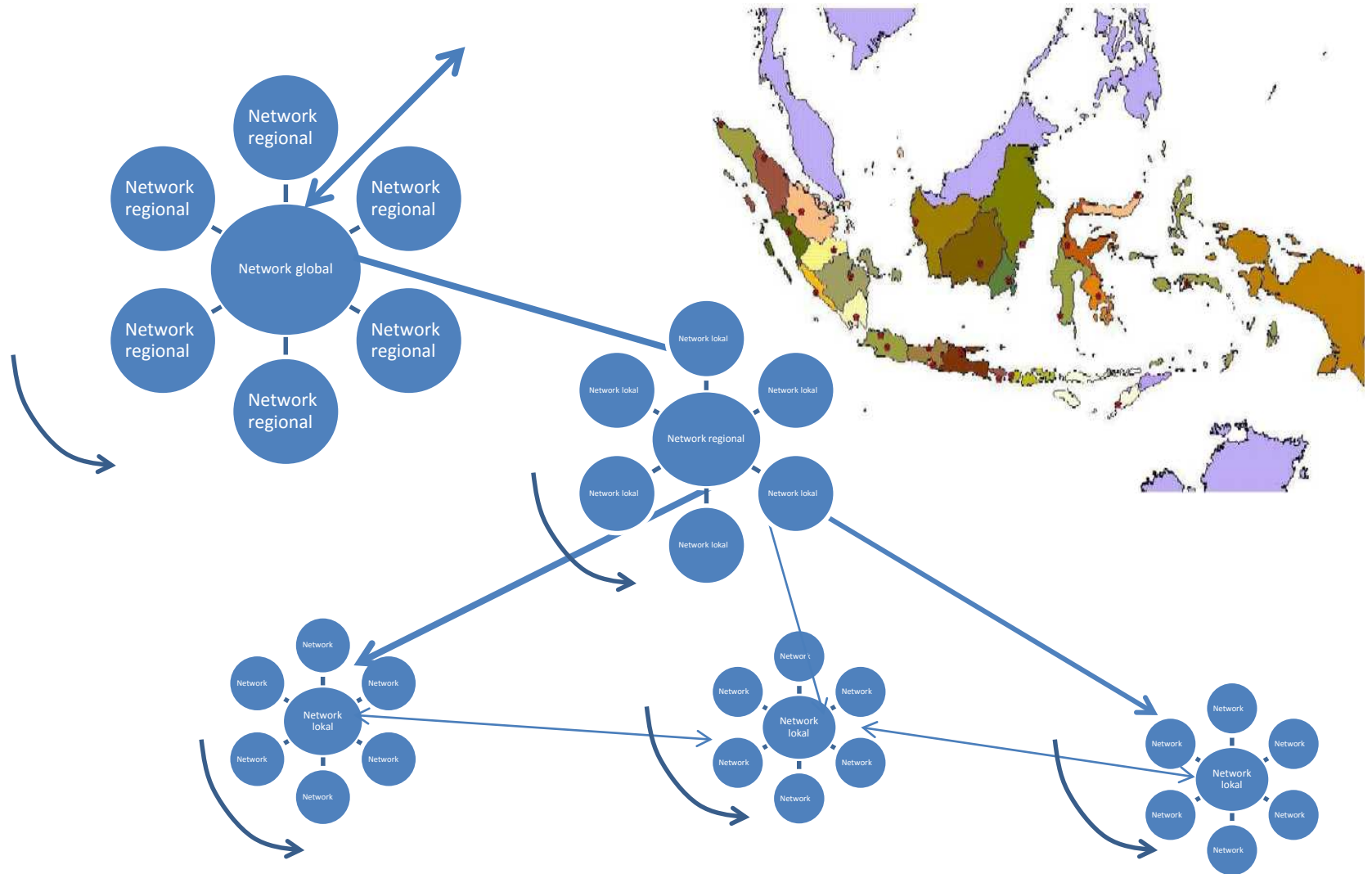
FACE BOOK

Skype

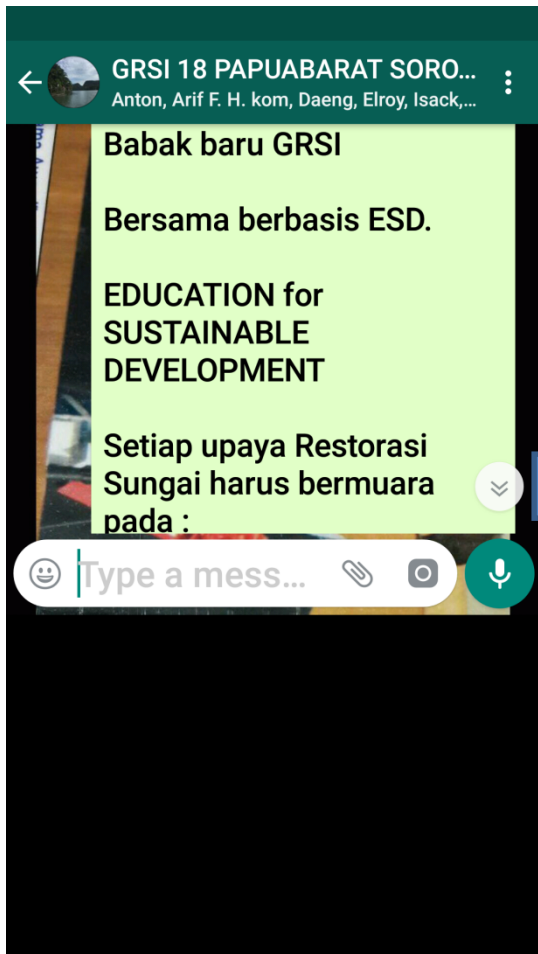
webex

twitter

Networking Approach → Connecting each group → suits for Large, Archipelago Region



ESD- Action and Movement After ECHO WORKSHOP UGM



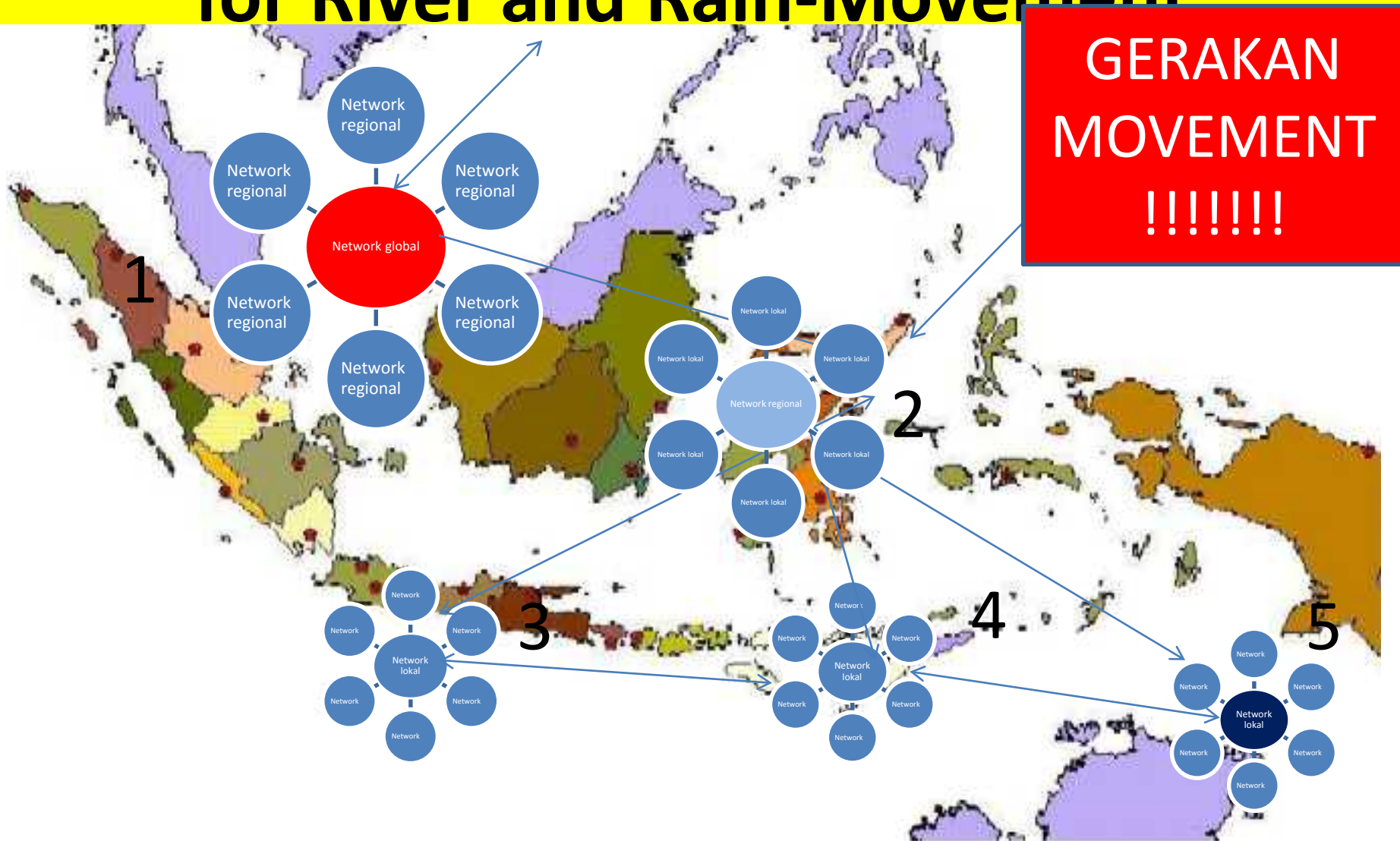
Community based Approach → (SDGs)



**To success in SDGs we need
“Community Involvement and Movement”**

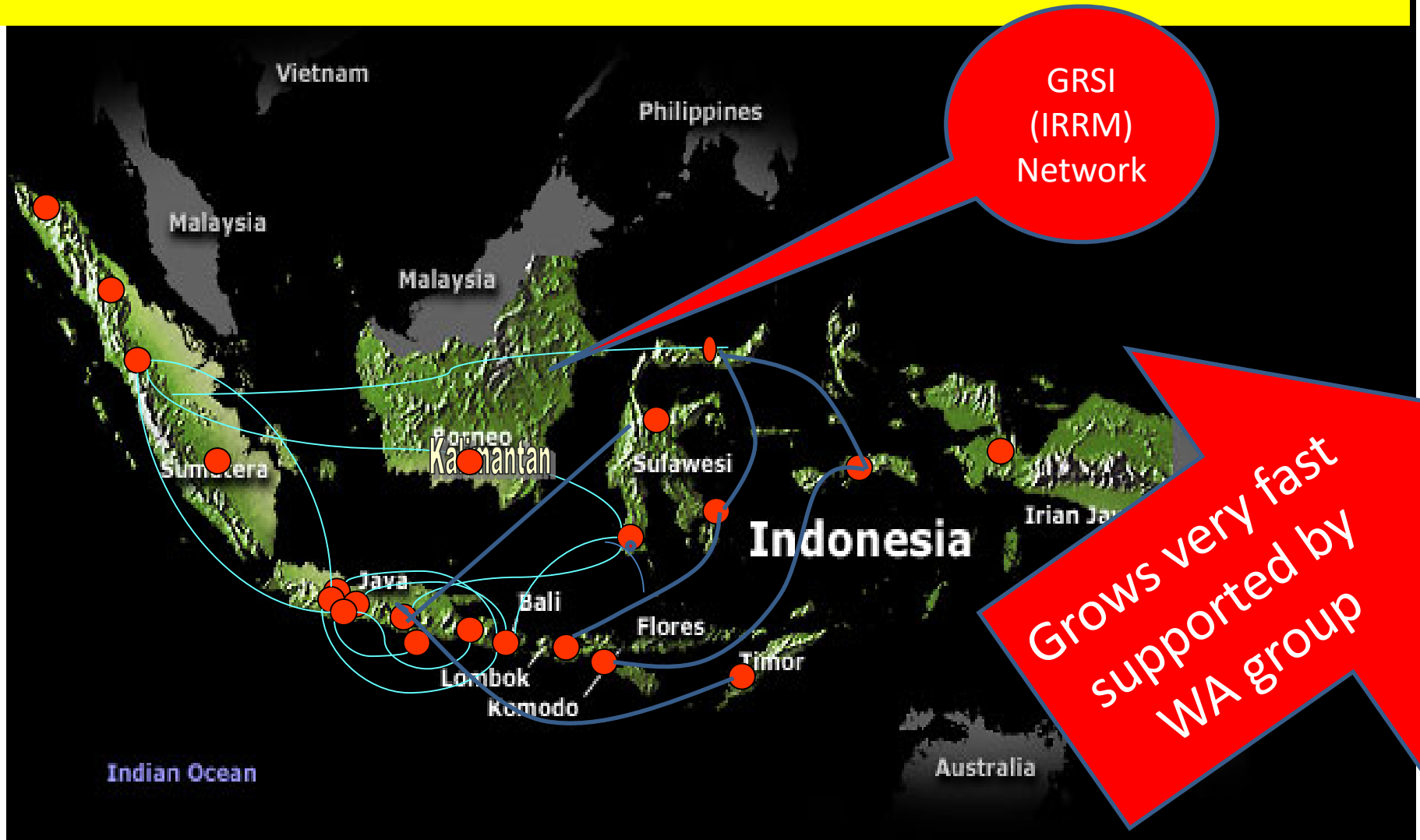
Country Action

Based on NETWORK Development for River and Rain-Movement

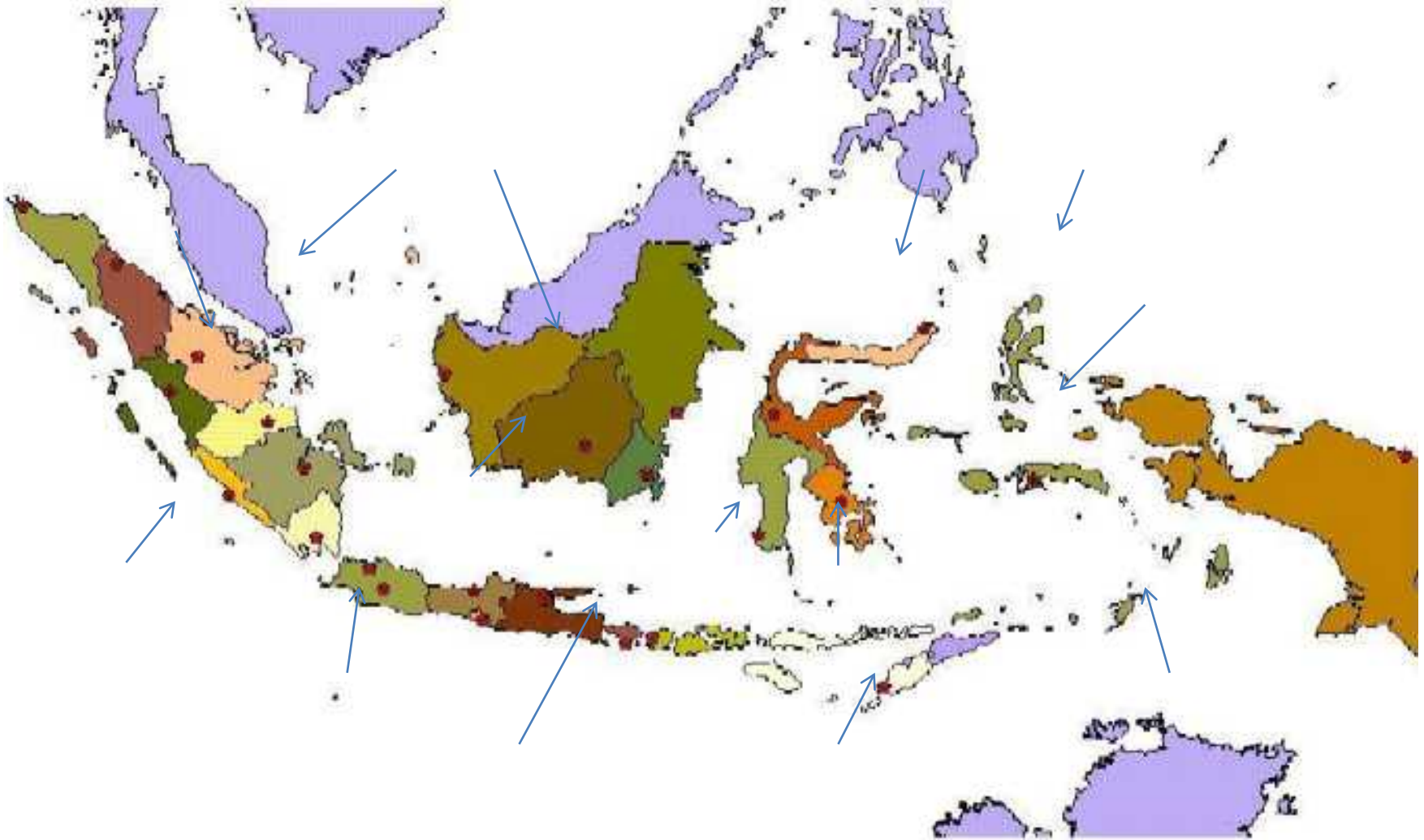


DINAMIC NETWORKING

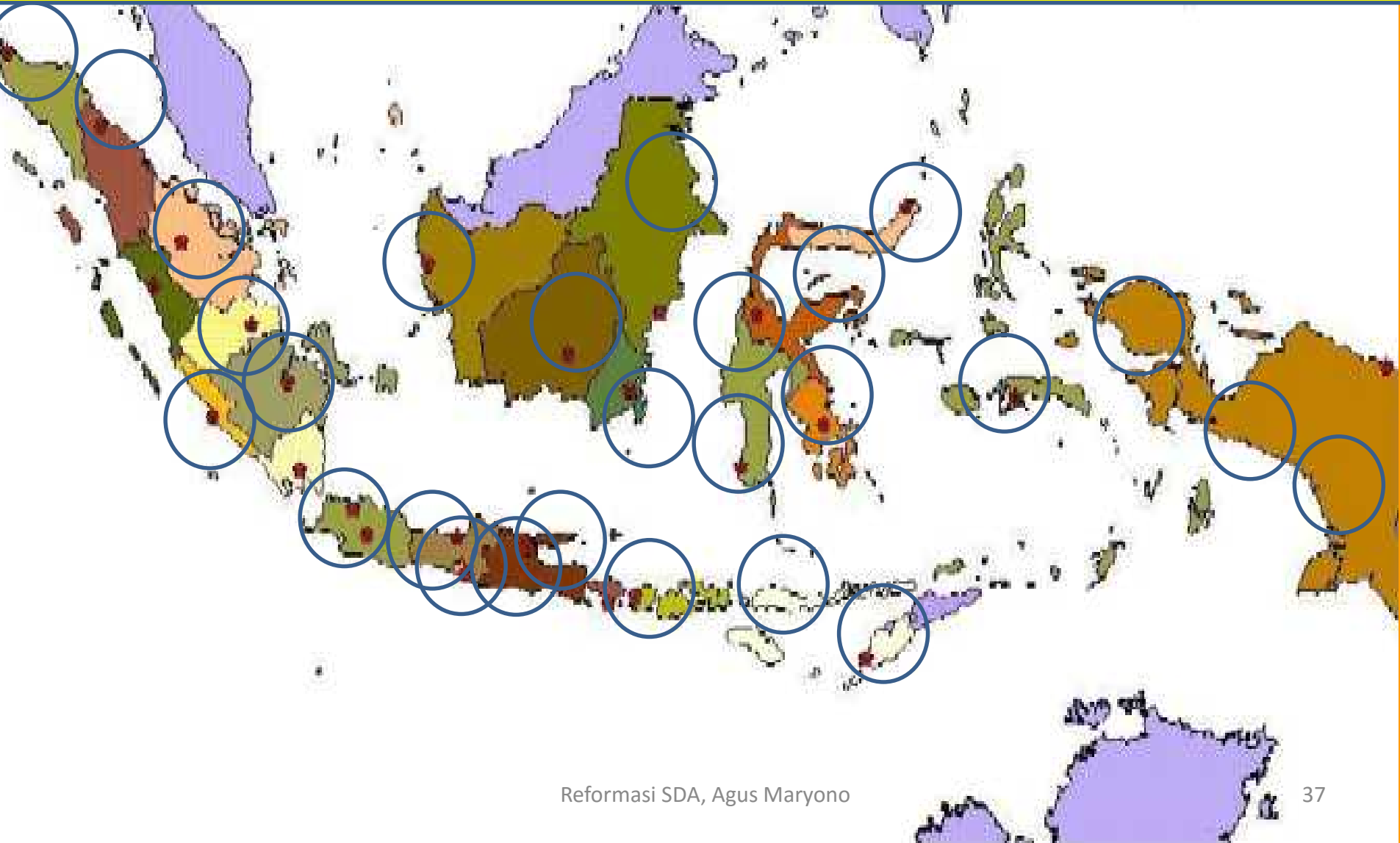
58 WA Groups River Restoration and , 18 WA groups of Rainwater Harvesting Movement



ESD is Back Bone of Indonesian River Restoration and Indonesian Rainwater Harvesting Movement



RIVER RESTORATION an RIVER SCHOOL MOVEMENT DEVELOP VERY FAST



Opportunity : Regional Network of River Restoration for ASEAN and World



ESD UNESCO Workshop Chiang Ray and in UGM

- Inserting the ESD Conception in the IRR Movement

- Inserting the ESD Conception in the IRWH Movement

- Inserting the ESD Conception in the way of thinking and constructing the Curriculum Development for the Teacher Training Institution

- Inserting the ESD Conception in the way of thinking and constructing the Community Services Curriculum

What is in the Curriculum relevant.?

- Community Services →
- River School (ESD is already included) Curriculum of river school is already inline with ESD conception)
- Extra Curricular is started with ESD conception (student go river, student services ect)
- Community Services →
- Rain WH will one of the community services tool (ESD conception will be used in explaining the benefit)
- Seminar, work shop, lecture and discussion among student lecture and community using WA is already with ESD-SDG topics

River School Education Based Community



Code River, Yogyakarta before restoration



The Plan of Code River Restoration

River School (Sekolah Sungai) (Yogyakarta, Klaten and Solo)

Background on the development of **Sekolah Sungai**: the stream degradation in Indonesia reached 73% in 2014 (according to the Ministry of Environment and Forestry), and the management of rivers today is far from the ideal. This River School objectives are to develop the responsibility of the community, transfer of river knowledge and develop the knowledge and understanding of the community about river and environment. The River School produce also module, book, film, comic and history in order to support the social economic environment of the community.

- The River School** Modules are:
1. Concept and implementation of river restoration
 2. River pollution and waste management
 3. Empowerment and organization of riverbank communities
 4. Development of Tourism
 5. Disaster risk reduction
 6. Improving local economy



Kartini Day & Earth and Environment Day Celebration



Yogyakarta River School: Clean Water Day in Gadjah Wong River



Klaten River School: Resik Kali

Philosophy of the Program

- The activity is undertaken by the philosophy of community movement
- The activity stimulate and generate a new movement concerned to the environment and forestry
- The activity encouraging local community to be active in collaboration with all stake holders
- The organization and activity is using Systemic and network approach

Love and Affection are the Souls of Indonesia River Restoration Movement (GRSI)



IRIKU CINTA SUNGAIKU



I will join Merli Code, because of love



I remove the river waste because of love



I do rafting because of love



UGM Launching Srikandi Sungai Indonesia - Prof. Suratman

River Restoration

- Hydrological Restoration (water quantity and quality)
- Ecological Restoration (Flora and Fauna of the stream)
- Stream Morphology Restoration (lengthwise and crosswise grooves stream)
- Socio-economic and Cultural Restoration (improving people awareness who lives near stream area)
- Regulation and institution of river restoration (river community group)

GRSI in Yogyakarta



Indonesian River restoration movement (IRR) begins with socialization of river flood plain awareness in 2001.

WhatsApp Group of Indonesian River Restoration Movement since 2016

- | | |
|---------------------------|--------------------------|
| 1. GRSI,IRR Yogyakarta | 10. GRSI,IRR Banjarmasin |
| 2. GRSI,IRR Jakarta-Bogor | 11. GRSI,IRR Lombok |
| 3. GRSI Bandung | 12. GRSI,IRR Manado |
| 4. GRSI,IRR Surakarta | 13. GRSI,IRR Sukoheri |
| 5. GRSI,IRR Semarang | 14. GRSI,IRR Jember |
| 6. GRSI,IRR Surabaya | 15. GRSI,IRR Tasikmalaya |
| 7. GRSI,IRR Klaten | |
| 8. GRSI,IRR Makassar | |
| 9. GRSI,IRR Aceh | |

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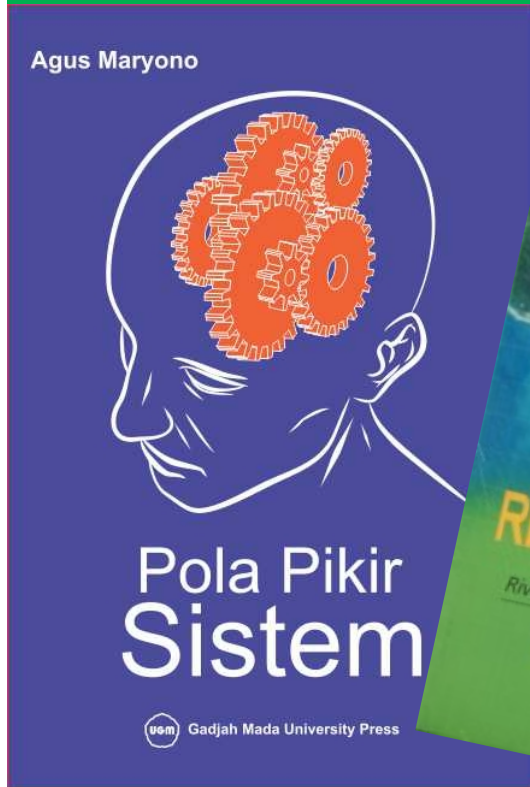


Code Inspirational Park



RSI movement is a cultural act, hence **Stamet Raharjo** willing to become the Yogyakarta-Indonesia River Ambassador

Knowledge Based Approach → ESD → Book and River School



River School
organized by IRRM

Lesson Learn from the IRRM and IRWHM will be used for the Integration of ESD Conception on the Curriculum in term of Movement in Global and Country Action

- Curriculum of Community Services Program
- Curriculum on the Teacher Training Course
 - Curriculum on any other Faculties

ACTIVITIES-ACTIONS- Country Action

Country Action from UGM

- IRRM -→ growing very well in all Indonesian region
- IRWHM → growing well in all Indonesian region
- 7000 Students/Year for Community Services
- 2000 Lecturer/Year for Community Services
- Socialization/ Campaign for Integration of ESD Conception on Curriculum

Steps for Community Empowerment (prof Irfan P)

Awareness and
Behavior
Formation

toward awareness and caring so that they feel the need to improve the self-ability / capacity

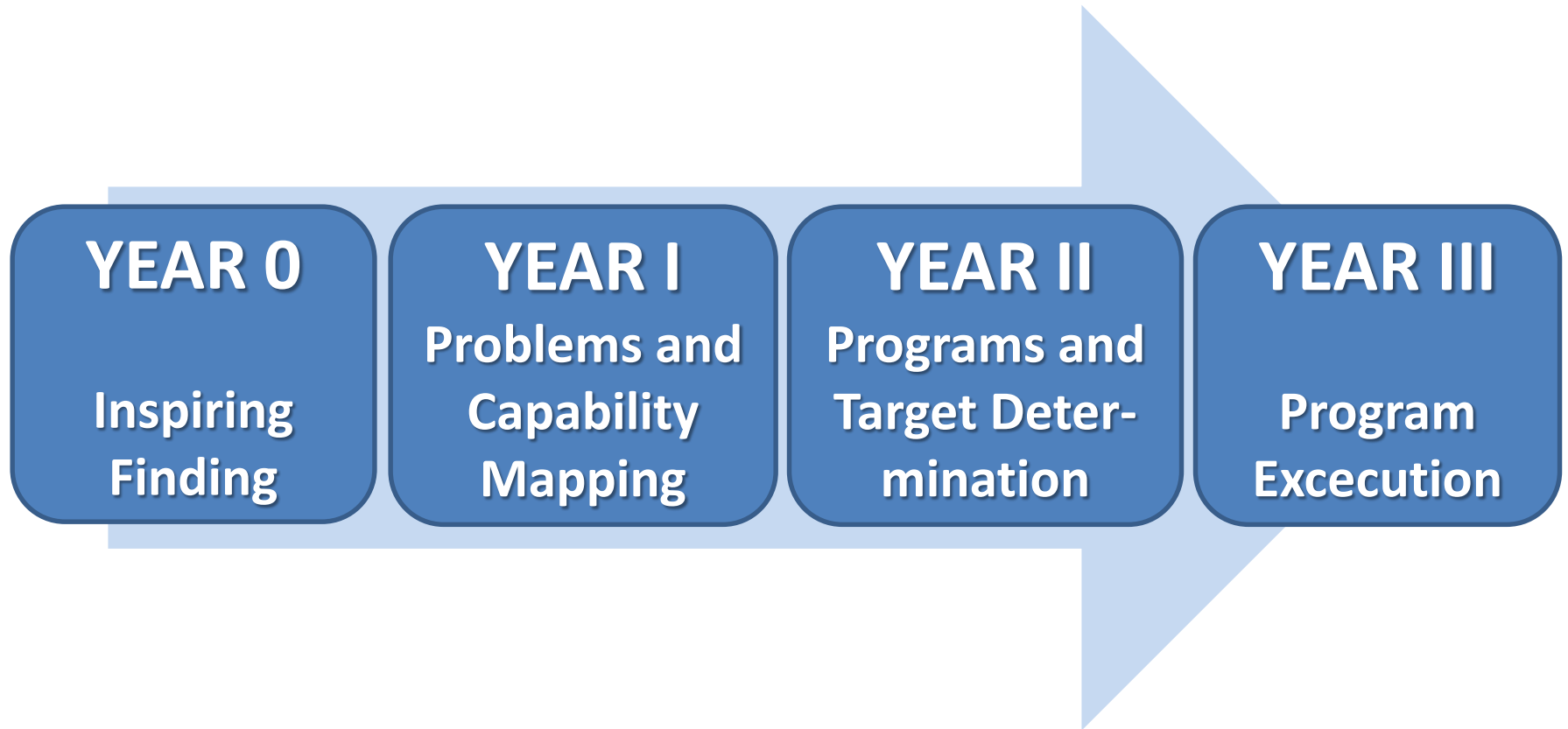
Capability
Transfer

Provide basic skills to make them able to take a role in development

Improved
intellectual
abilities and skills

Shaping the ability to initiate and innovate to be independent

Time Frame for Community Service Learning



Problems and Potential to mapped? Related to Sustainable Development



Mapping of Community Potential



Condition of Cattle, Sheep, and Goat Sheds



Disseminating and Discussing Alternative Ways of Improvement



Training of Champions in Universitas Gadjah Mada



On-site Training for Cattle, Sheep, and Goat Raising



ESD and River Restoration in Univ of Proklamasi Jogjakarta, 19/4/18





ESD-River Ecohydraulic Discussion, in UGM 19/4/18



ESD-Sociopreneur workshop in UGM

8/4/18







World Water Day and ESD, Semarang, 6/4/2014



Rain Water Harvesting (ESD) Exhibition, Semarang 7/4/18



Eco-Hydraulic Practice and River Clean Up, UGM Students





River School, Usman, Jakarta Ciliwung, 21/4/18



Makasar, Daeng Muji





Press Release about RWH and River (ESD Conception)

ma Kartim
m berangkat
Palutungan,
2018).*

PTTUN Jakarta membatalkan putusan
PTUN Bandung.

Artinya, kata Khalimi, izin lingkungan
PLTU II Indramayu sah atau

kungan kini dinyatakan sudah sah secara
hukum. "Sudah tidak ada lagi alasan
menolak pembangunan," ujar Khalimi
menegaskan.

Kedaluwarsa

Berdasarkan informasi yang dia terima,
gugatan dari warga memang dibatalkan
karena alasan sudah sudah kedaluwarsa.
"Kan ada batas waktu 90

dan menggunakan tersebut yang benar-
benar tidak melibatkan masyarakat dalam
penyusunannya. "Bahkan dari sisi amdal
sangat kacau, izinya diterbitkan begitu
saja," kata Dwi. (Gelar Gandarasa)***

Satu-satunya Masjid dengan Konsep Hijau

duy

apkan an-
uncul keti-
banjir. Ter-
hujan. Su-
sering me-
Sungai Ci-
r hujan se-
h dan hilir
daknya ke-
ditambah
terjadinya
jarnya.
kan erosi
sekitar dua
n tersebut
jarak bibir
i warga ti-
i.
ungai de-
ncapai 15
in sempit.
terutama
asti terja-
simin.
Sukimin,
Parung-
alah satu
i erosi se-
ngan me-
paku. De-
air sungai
ghantam
sejak be-
ah meng-
tersebut.
aat ini ti-
ujarnya.
so)***

WAJAH Mochamad Mazid,
Direktur Irigasi dan Rawa
Direktorat Jenderal Sum-
ber Daya Air, semringah saat memper-
lihatkan sayuran pokcoy siap panen.
Hasil penanaman dengan metode
hidroponik yang ditanam di sekitar
menara Masjid Cimanuk.

Bersama Kepala Balai Besar Wilayah
Sungai Cimanuk-Cisanggarung (BBWS
Cimancis) Bob Arthur Lambogia, ke-
duanya mengawali panen sayuran
hidroponik kelima. Hasil dari penan-
aman hidroponik di teras dan menara
Masjid Cimanuk.

"Masjid Cimanuk bisa menjadi per-
contohan masjid-masjid lain ataupun
institusi lain yang mau menerapkan
konsep hijau," kata Mazid usai
meresmikan menara Masjid Cimanuk
dan melakukan panen sayuran hidro-
ponik, Jumat (20/4/2018).

Masjid di kantor BBWS Cimancis di
Jalan Pemuda Kota Cirebon ini me-
mang istimewa. Mengusung konsep
masjid hijau (*green*), BBWS Cimancis
benar-benar memanfaatkan sumber
daya alam sekitar untuk keperluan
masjid.

Sumber air untuk air wudu dan ke-
perluan lain masjid diperoleh dari hasil
pemanen air hujan. Alat pemanen air
hujan dipasang di sepanjang titisan
atap masjid dan di puncak menara
masjid. Di puncak menara setinggi 12
meter, ada alat panen hujan seperti
atap-atap terbalik dengan alat tangkap
air yang terbuat dari bahan fiber trans-
paran agar *memolo* (kubah) masjid
yang dipasang di puncak menara terli-
hat.



MOCHAMAD Mazid, Direktur Irigasi dan Rawa Ditjen Sumber Daya Air (kanan) bersama Kepala BBWS Cimancis Bob Arthur Lambogia mengawali panen sayuran hidroponik kelima hasil penanaman hidroponik di teras dan menara Masjid Cimanuk, usai peresmian masjid, Jumat (20/4/2018).*

Kalau dilihat dari jauh, perpaduan kubah dan alat panen hujan seperti bunga, dengan kubah sebagai mahkota dan alat panen hujan sebagai kelopak bunganya. Sejumlah alat penampung air hujan ditempatkan di sekitar masjid, dengan total kapasitas 6.000 liter.

Selain dipakai untuk wudu, air juga dimanfaatkan untuk media tanam hidroponik yang digantung di sepanjang teras dan menara masjid.

Empat tiang penopang menara masjid yang konstruksinya mirip bangunan Menara Eiffel di Paris, dimanfaatkan secara maksimal guna menggantung pipa paralon, untuk menanam sayuran. Satu kolom di antara kaki menara, ada 11 susun gantungan paralon untuk bertanam sayuran.

Agar air bekas wudu tidak terbuang percuma dan menghemat penggunaan air, diterapkan sistem daur ulang air

bekas wudu.

Menurut Kepala Bidang Program dan Perencanaan Umum Dwi Agus Kuncoro, semua sistem dan konsep hijau masjid dan sistem daur ulang air bekas wudu sudah dikonsultasikan dengan ahli hukum Islam.

Secara syariat Islam, menurut Agus, konsep daur ulang air wudu kembali untuk wudu sudah dikonsultasikan dan dinyatakan sah dalam artian, suci dan menyucikan. "Apalagi sistem daur ulang airnya, kan melalui serangkaian proses penyaringan. Bahkan sudah dicek di laboratorium dan hasilnya semua di bawah baku mutu," katanya.

Diawali dari air bekas wudu dialirkan dan ditampung dalam sumur filter dengan alas sejumlah lapisan di antaranya ijuk, pasir, kerikil, dan lainnya. Setelah bersih dan jernih, baru masuk ke sumur penampung.

"Di sumur penampung inilah, mesin pompa air bekerja untuk mengisi kembali bak penampung untuk keperluan wudu," katanya. Selain untuk wudu, air hasil panen air hujan dipakai untuk bertanam sayuran dengan metode bertanam hidroponik.

Menurut Agus, saat ini setidaknya sudah ada 1.000 lubang tanam media hidroponik untuk bertanam sayuran dari mulai kangkung, sawi putih, kem-
bang kol hingga pokcoy. Selama menerapkan konsep masjid hijau, setidaknya sudah empat kali panen sayuran hidroponik dengan kisaran sekali panen 7-10 kg. "Hasil sayuran yang ditanam, kami sumbangkan ke Pesantren Kebon Jambu, Ciwaringin Kabupaten Cirebon," katanya. (Ani Nunung/"PR")***

Misman-Kaltim Karang Mumus river



Sore 20 April 2018. Merazia sampah plastik di kampung dekat sungai, memungut sampah di sungai, membibitkan pohon spesies sungai karang mumus dan mengikuti pembelajaran restorasi sungai sesi restorasi ekologi. Begitulah pembelajaran untuk siswa sekolah sungai karang mumus/SesuKamu. Begitu sahabat.

Misman –Kaltim KarangMumus



Pagi 20 April 2018. GMSS SKM bersama anak anak pungut sehelai sampah sungai karang mumus di area jembatan Kambung Mangkurat, sungai karang mumus memang masih menjadi tong sampah kita diam saja. Begitu sahabat

Kamaludin Jogja, Rainwater Harvesting



Wahyuningsih- Rainwater Harvesting, Sleman Jogja



Visit from RWH and Biopore Activist Ternate, Moluca to UGM



Pontianak, RWH and River Restoration, Pontianak, Kalimantan -- /3/18



RWH Student and youths learning to build RWHarvester (PAH)



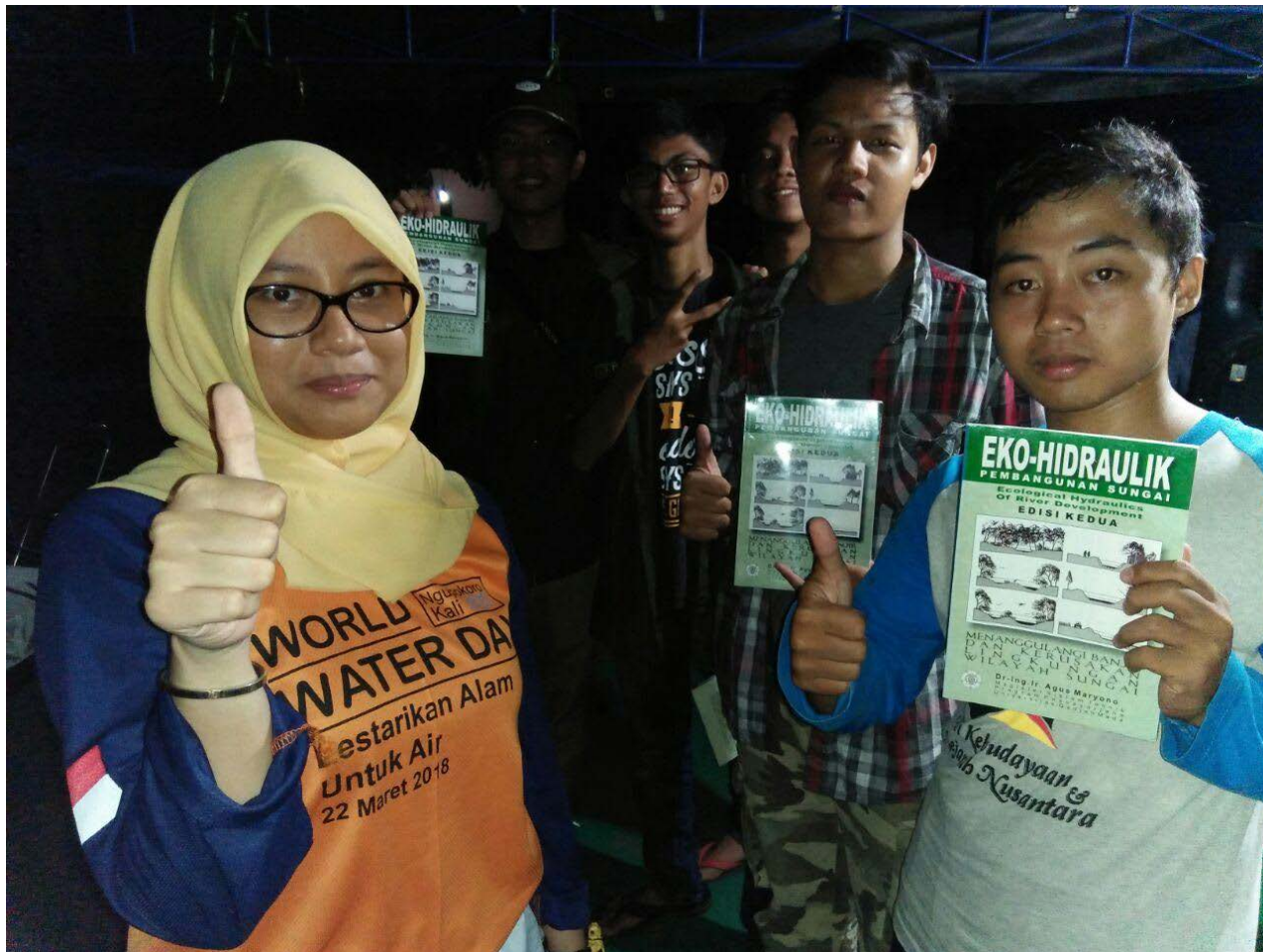
Daeng Muji, Makasar River Action



Tri Budi, Jogja , Tubing and Clean up river Tambakbayan, 22/4/2018



The Winner, Tri Budi, Jogja , Tubing and Clean up river Tambakbayan



Country Action from UIN

- IRRM -→ Starting to develop
- IRWHM → Starting to develop
- 5000 Students/Year for Community Services
- 1000 Lecturer/Year for Community Services
- Socialization/ Campaign for Integration of ESD Conception on Curriculum in Univ level

Seminar on ESD in Islamic State University UIN Jogja, 19/4/18



Dr. Agus UGM

Dr. Isti UIN, 19/4/18



Country Action from UNY

- IRRM -→ Starting to develop
- IRWHM → Starting to develop
- 5000 Students/Year for Community Services
- ca. 500 Lecturer/Year for Community Services
- Socialization/ Campaign for Integration of ESD Conception on Curriculum in Univ. level

Country Action from USD

- IRRM -→ Starting to develop
- IRWHM → Starting to develop
- 2000 Students/Year for Community Services
- Ca. 500 Lecturer/Year for Community Services
- Socialization/ Campaign for Integration of ESD Conception on Curriculum in Univ. level

ESD Country-Global Action “Movement in Indonesia”

- Indonesian River Restoration Movement (IRRM/GRSI)
- Indonesian River School Movement (IRSM)
- Student Goes to River Movement (SGRM)
- Indonesia Rainwater Harvesting Movement (IRHM)
- Indonesian Women (Sri Kandi) River (SSI)

Conclusions

- Local action base movement is going rapidly
- Country action based movement is moving forward,
- Regional action can be initiated now
- ESD integration in Curriculum in community services for example in River School and Rainwater lecture in starting to Implement
- ESD integration in Curriculum for Teacher Training institution is started.