

## Harvesting rainwater: essential to achieve 6.1 and for water securit





# My Journey to Rainwater Harvesting: Failure and overcome

1. Started since 2006 at Vietnam until now.
 Overcoming the failures,
 Improve and make a better version each time.

Make theoretical background

publish scientific papers

Producing 10 PhD and 30 Master

# Challenges in Rainwater Harvesting

- Water quality is not reliable
- Water shortage during dry season
- No method for evaluation
- Poor maintenance, low efficiency
- No sense of ownership



#### Not convinced

by the owner, by the designer, by water experts
Not fully supported and welcomed

by the international organizations, by donor agencies, and by the governments.

#### Scale of the system

Large Scale Water



Community
Based

Individual Scale

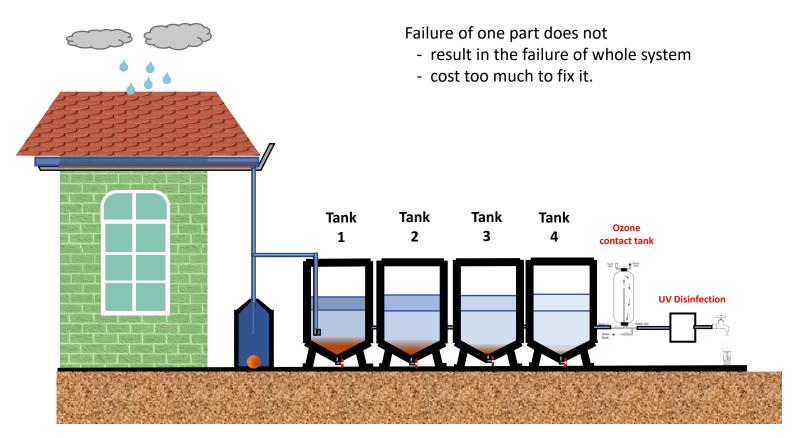


**Health Care Center** 

School

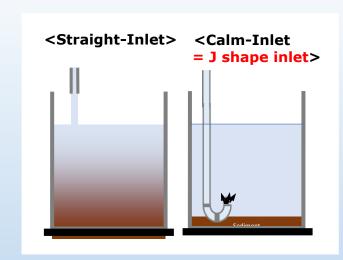


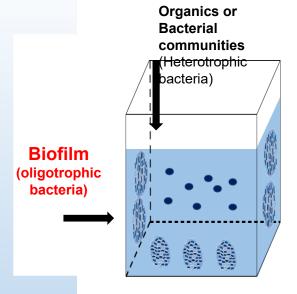
#### **MBC(Multiple Barrier Concept)**





#### **NBS(Nature Based Solution)**





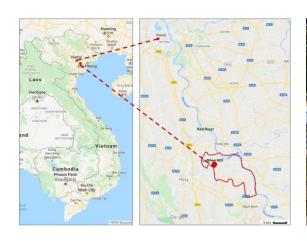
#### [particle]

 Dissanayake, J.; Han, M. Effect of Inlet/Outlet Configuration on Water Quality in a Rainwater Harvesting Tank. Water 2020, 12, 1970.

## [ Organics and Pathogen ]



#### RFD pilot system at Ly Nhan Hospital, Hanam, Viet Nam with the collaboration of SNU, WHO, VIHEMA since Sep. 2019





No Promotion to the society

#### Let us focus on Schools

- Students are the teachers of the parent and society.
- Students will be the leader and owner of this planet.
- They should know how to overcome climate crisis.
- Students, parents and school have desire for education.
- Students from each country can together make a peaceful world.

#### BiTS at Rain School?

- BiTS is a special group (Bi (=rain) Teacher and Student)
- 1-2 teachers + 3 group (one from 10,11,12 grade)

Beauty
Art, Culture,
Dance,
Decoration

Technology

Monitoring
Tech Design
IT

Social
Promote in the school and to society

## Rain School in Halong, Vietnam



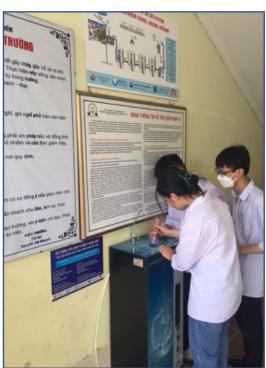


## NBK school, Halong Bay, Vietnam











## Rain School Initiative in Monsoon region to overcome climate crisis UNWater Action Agenda

Rain For All (Non-governmental organization (NGO)) #SDGAction49796

Water is a fundamental part of all aspects of life



Virtual Side Event on Monday,

Rain Dance from 6 countries

#### Vietnam



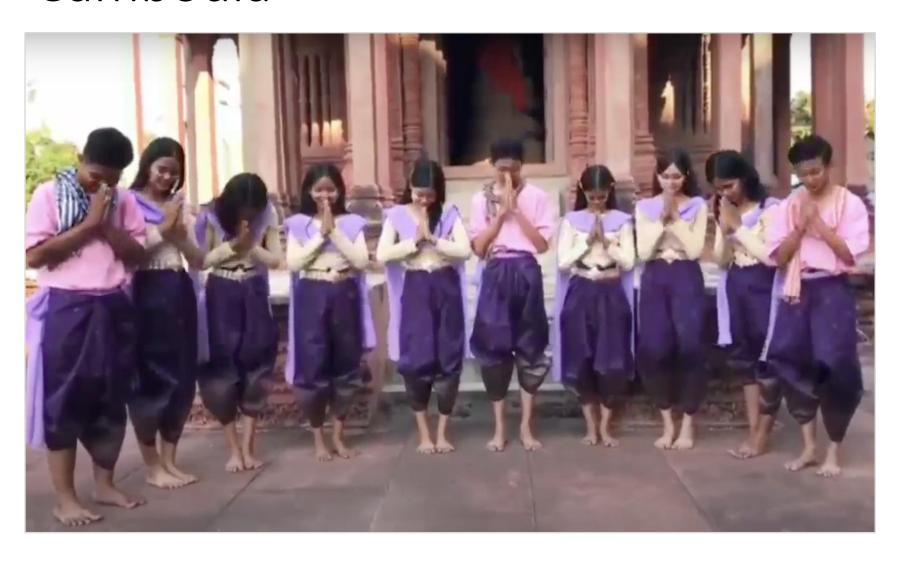
### Korea



#### Vietnam



## Cambodia



#### Mexico



## Sri Lanka



## Thailand



# Rain village and Rain Festival (Case of Vietnam)

- Festival at the rain village
- Dance by Students
- Dance by Teachers
- OX quiz
- Various fun and interesting activites.
- Rain Dance
- Rain festival

#### International Rain School Network

