

Setu Babakan

*Building an Innovative Model of
Cultural, Environmental and Economic Sustainability*



CONTENT

Story of Setu Babakan

Findings and Analysis

Innovative Model of Sustainable Kampong

Master Plan – Gaps

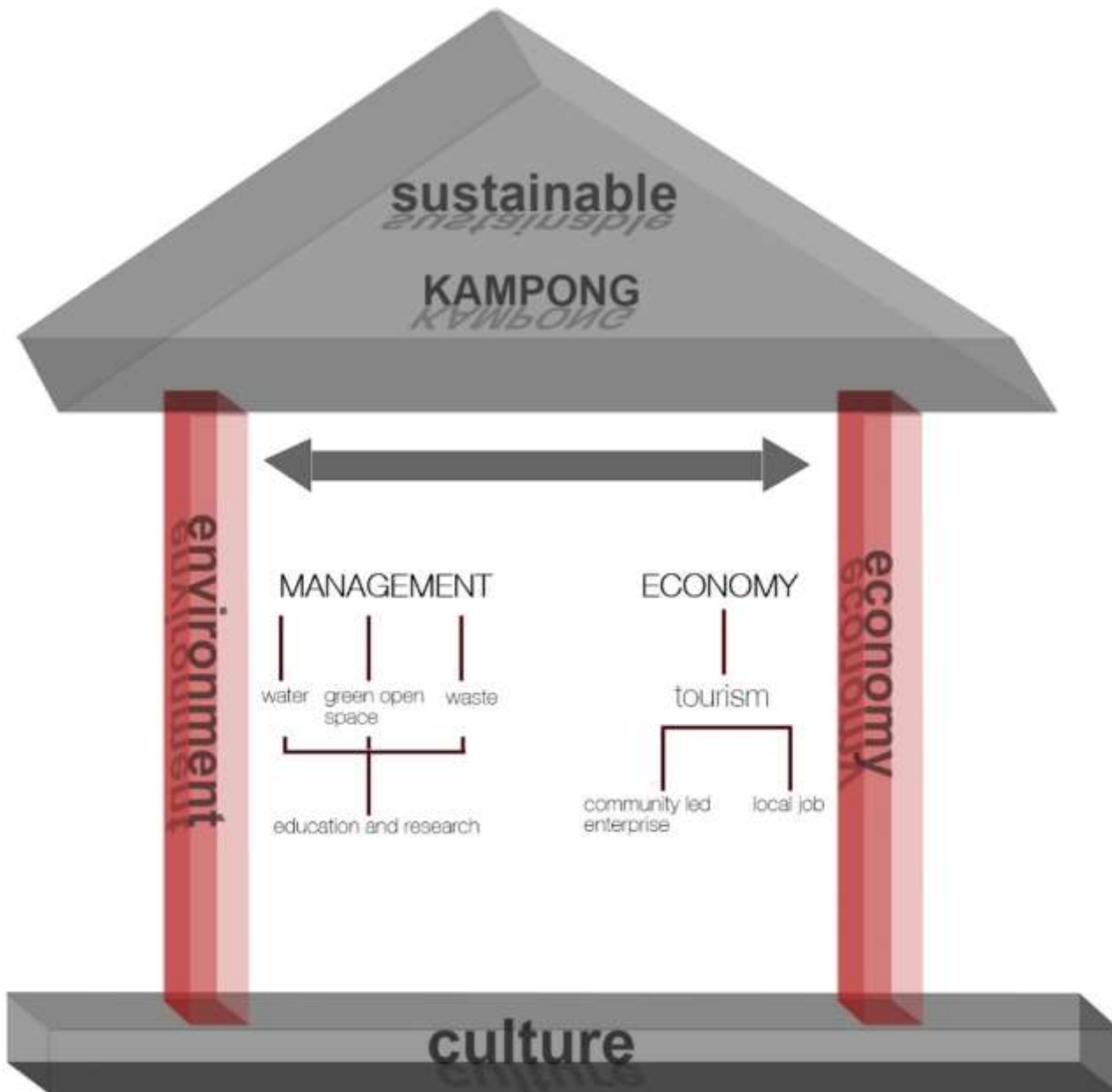
Recommendations

Conclusion



2005-2020

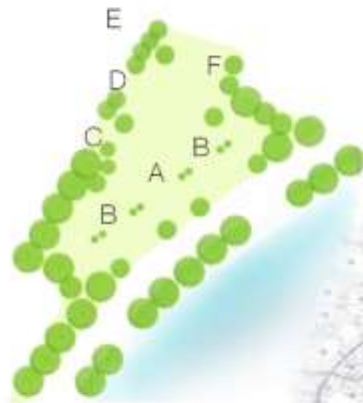




MASTERPLAN

ECONOMY ZONES

- | | |
|-------------|-------------|
| A. FASHION | D. TOILET |
| B. CULINARY | E. SECURITY |
| C. SERVICE | F. PRAYING |



Source:
UPK Situ Babakan



ADMINISTRATIVE & CULTURE

CULTURAL CENTER, PERFORMANCE STAGE, ADMINISTRATIVE BUILDING, PARKING AREA, BUS STOPS, SERVICE & PRAYING AREA



CULTURAL CENTER

- A. SMALL PORT
- B. COMMERCIAL RESORT
- C. RESORT LOBBY
- D. CONVENTION HALL
- E. MAIN KITCHEN & UTILITY
- F. RESTAURANTS
- G. PLAZA & INFORMATION CENTER
- H. FOOD AND SOUVENIR
- I. REPLICAS OF BETAWI NATURE
- J. REPLICAS KAMPUNG BETAWI

RESPOND TO THE PLAN

- Creates cultural spaces
- Promotes activity in the area
- Clearly define betawi cultural area

- Focuses on tourism economy
- doesn't emphasize green infrastructure
- betawi architecture not regulated
- no additional facilities for water treatment
- primary focus not on community engagement or education

METHODOLOGY

Observations

Tuesday, 12th Jan, Friday, 15th Jan and Saturday, 16th Jan.

Locations: Setu Babakan upstream and downstream, West, East and North side.

Objective: Map the land-use, function and activities, water cycle and quality, waste management, culture and lifestyle.

Interviews

Elder Betawi, Anin Saminjibur.

Betawi **Bang Indra**.

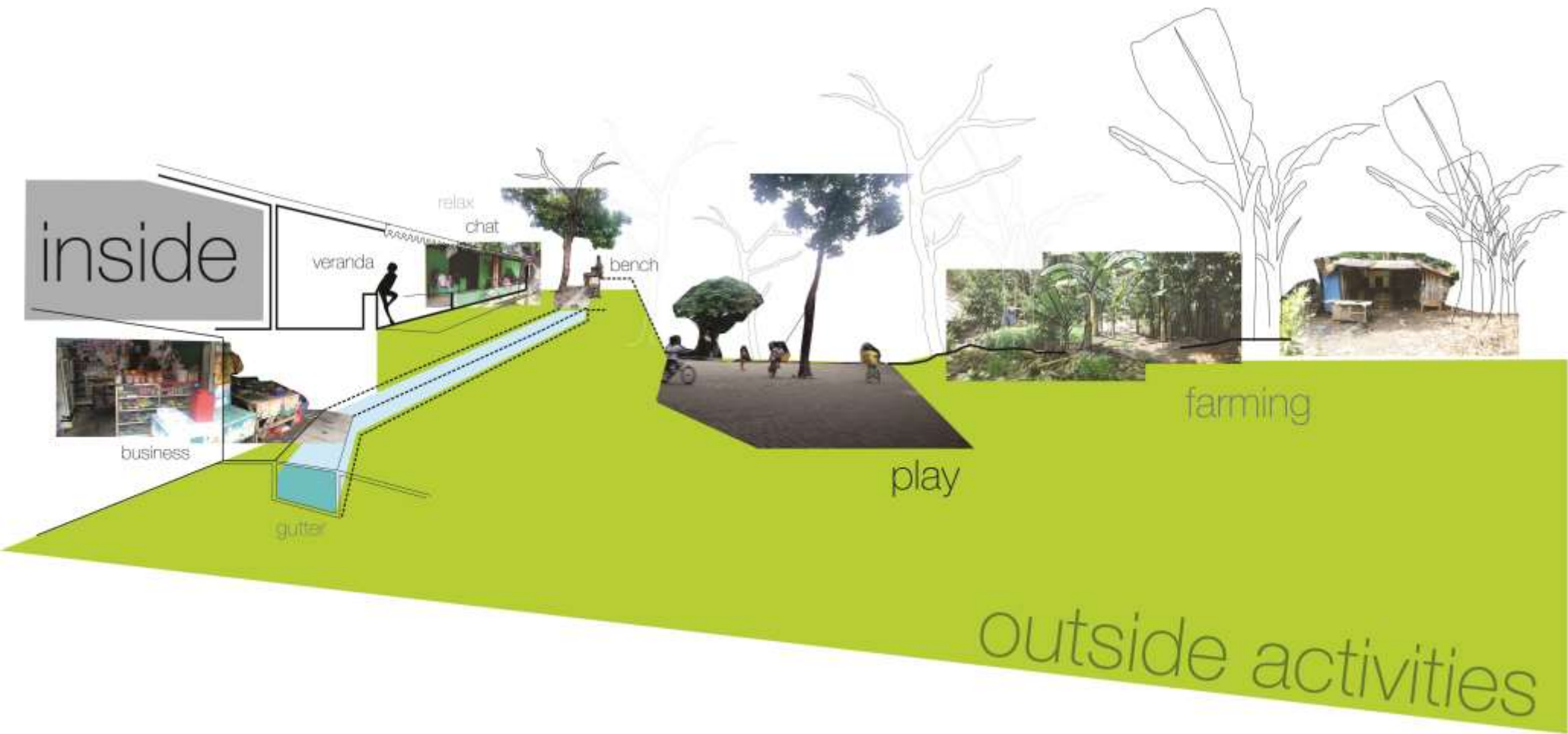
Member of the Administration, Betawi Rony.

Visitors.

Local residents, businesses and workers (maintenance, fishermen...).



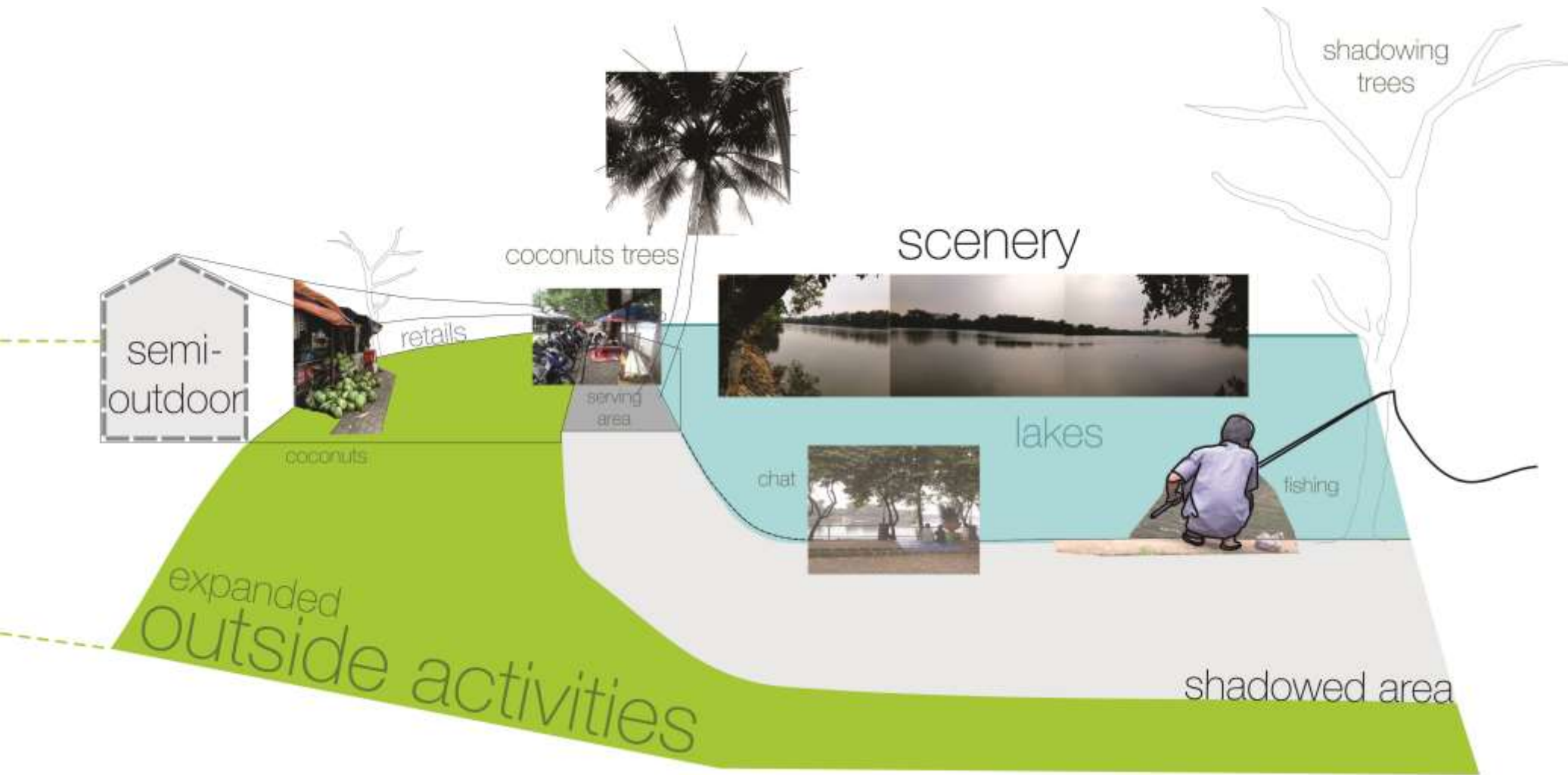
CULTURE & LIFESTYLE



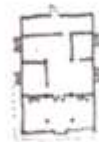
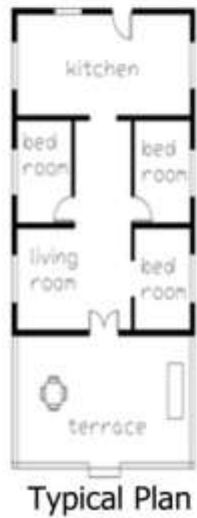
"We don't get a feeling of the Betawi culture here."

Visitor family #2

CULTURE & LIFESTYLE



CULTURE & BUILT ENVIRONMENT



1. Traditional



2. Modern traditional



BETAWI'S ARCHITECTURE



WEST

3. Modern



WATER

Setu Babakan water quality

Parameters	Average	Standards
Temperature(Celcius)	31,77	30,00
Dissolved Oxygen (DO)(mg/L)	5,21	3,00
COD(mg/L)	40,00	30,00
NO2 (Nitrite)(mg/L)	0,15	0,01
H2S (Sulfide)(mg/L)	0,01	0,03
Fluorida (F)(mg/L)	0,07	< 0,01
Oil and Grease(microgram/L)	1,13	1,00
Detergent(microgram/L)	0,14	0,10
Phenol(microgram/L)	0,01	0,00
Fecal Coliform(MPN/100 mL)	22000,00	20000,00
Total Coliform(MPN/100 mL)	97666,00	20000,00

Contaminants in water:
sewage water
organic waste
domestic waste



"I could drink the water from the lake in 1948, but I don't even dream about it now."

Anin Saminjibur (elder Betawi)

WASTE

FIX THE LAYOUT



“The fish population started to decrease ever since we began using plastic bags.”

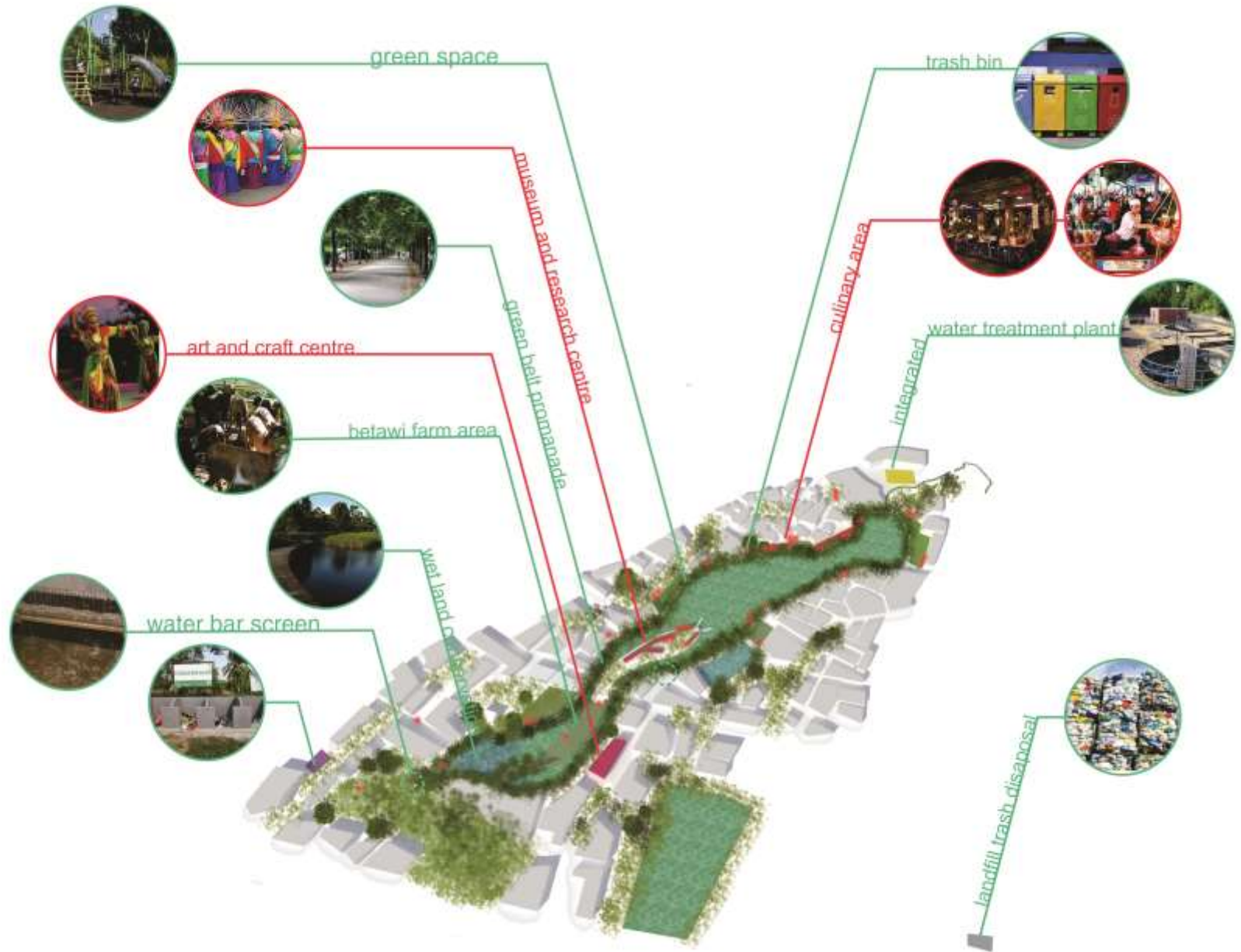
Anin Saminjibur (elder Betawi)

OPEN SPACE & CIRCULATION



Group of 3 children

PLANNING RECOMENDATION



REINFORCING BETAWI CULTURE



Adding Activities in the Perimeter of Island
Get Rid of Wall



Adding Research Centre on the Island

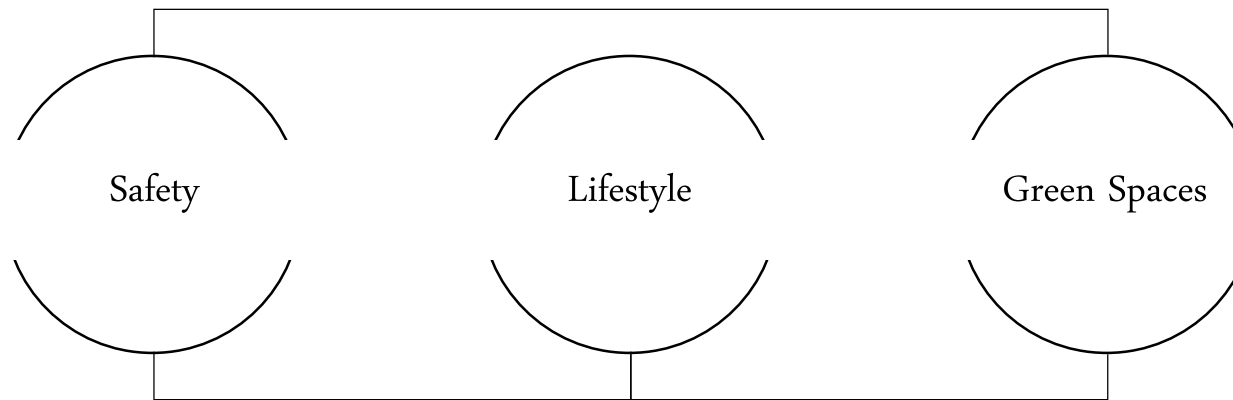
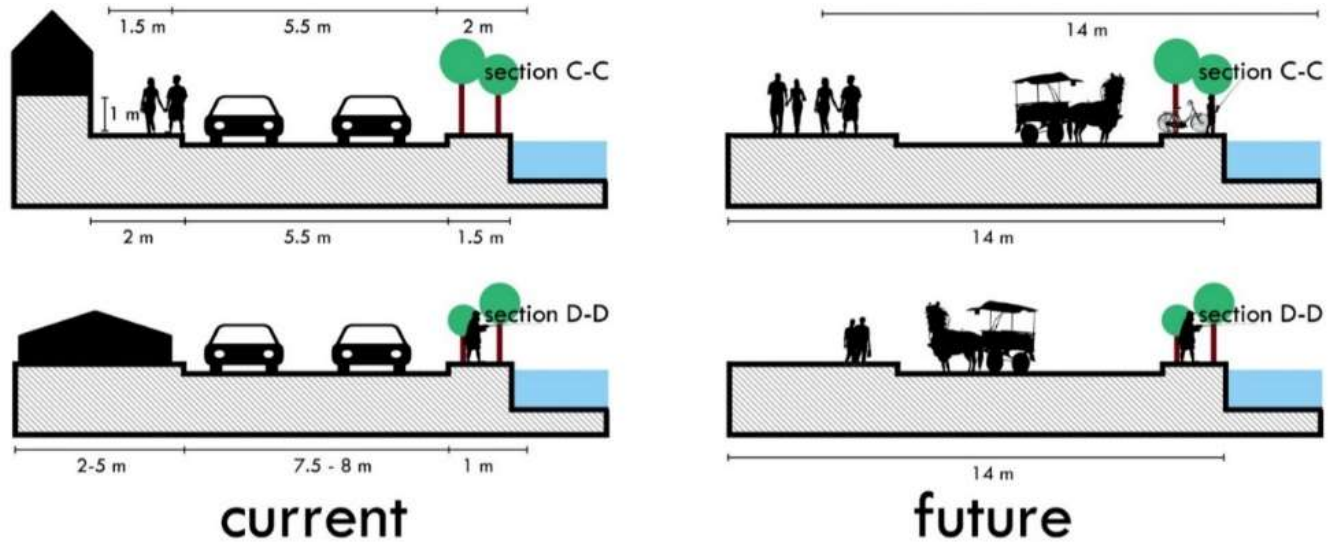


Adding One More Meeting Point for Community



Give Zoning for The Food Culinary

OPEN SPACE & CIRCULATION



WETLAND

possible solution 1:

- Tree plantation I to preventing landslide
- Remove retaining wall

possible solution 2:

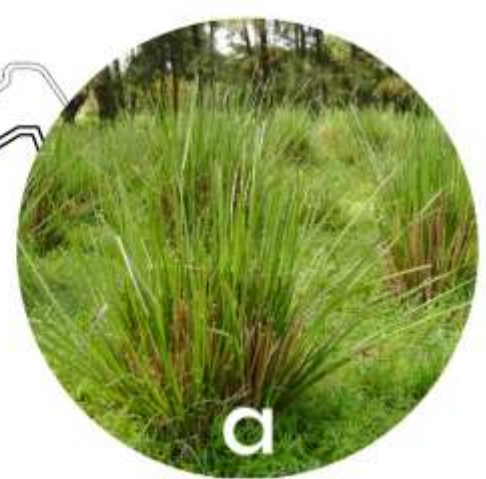
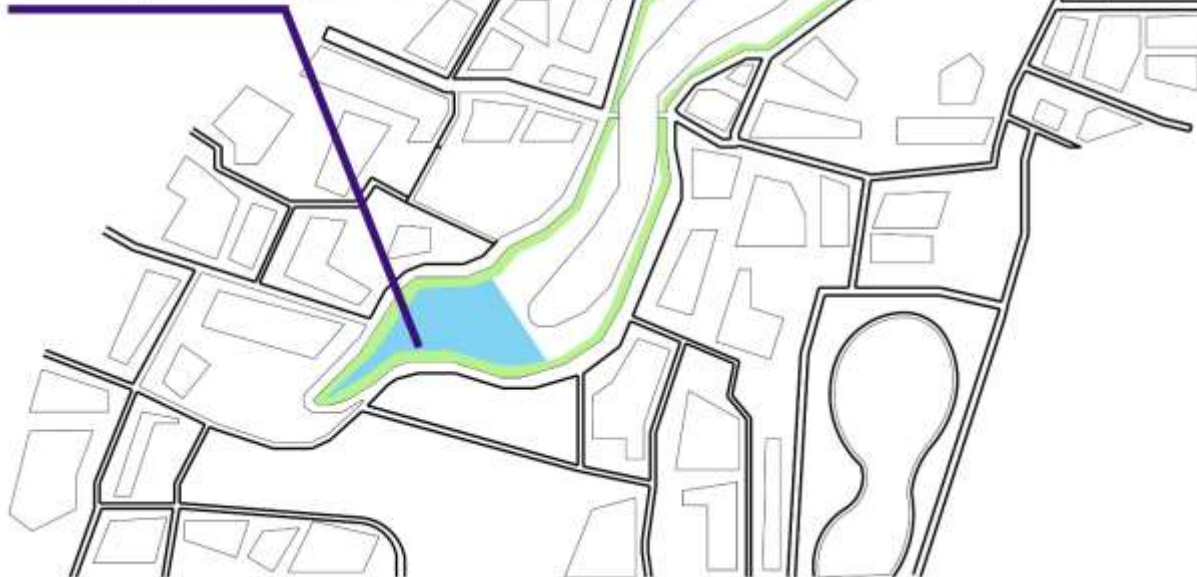
-Potential phytodecontamination crops

-Potential species

a. vetivergrass

b. helianthus

c. thlaspi caerulescens



WATER

total area of Setu Babakan
0.357 km²

population density
7123 residents/km²

number of residents
2564 residents

watershed
Ciliwung Watershed

initial discharge of lake
1.3 m³/s

waste volume
25 gr/person/day

total waste volume
64.1 gr/day

WTP Capacity for
domestic waste
192300 g/day

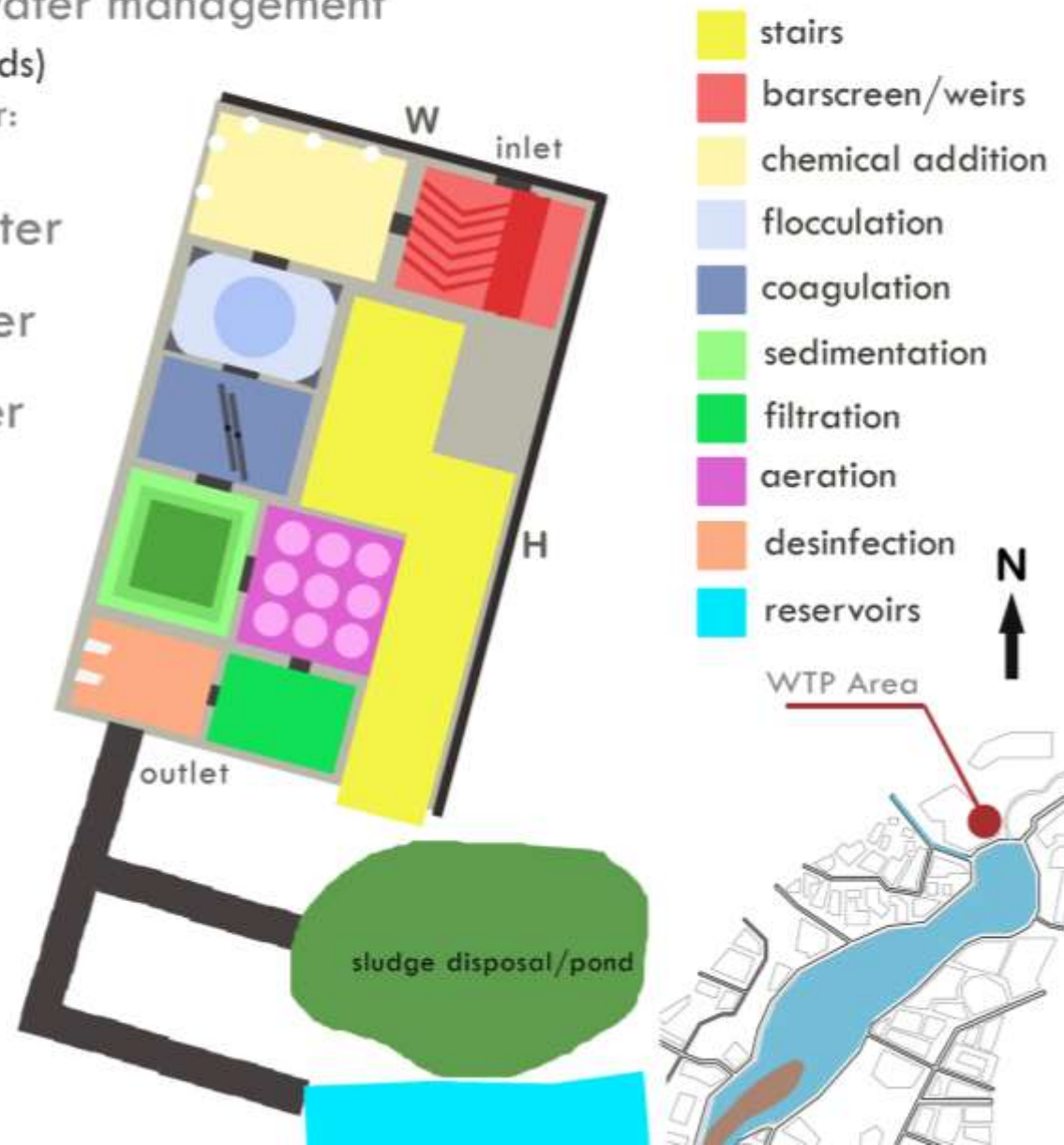
treatment
chemical treatment

details: Water Management Setu Babakan

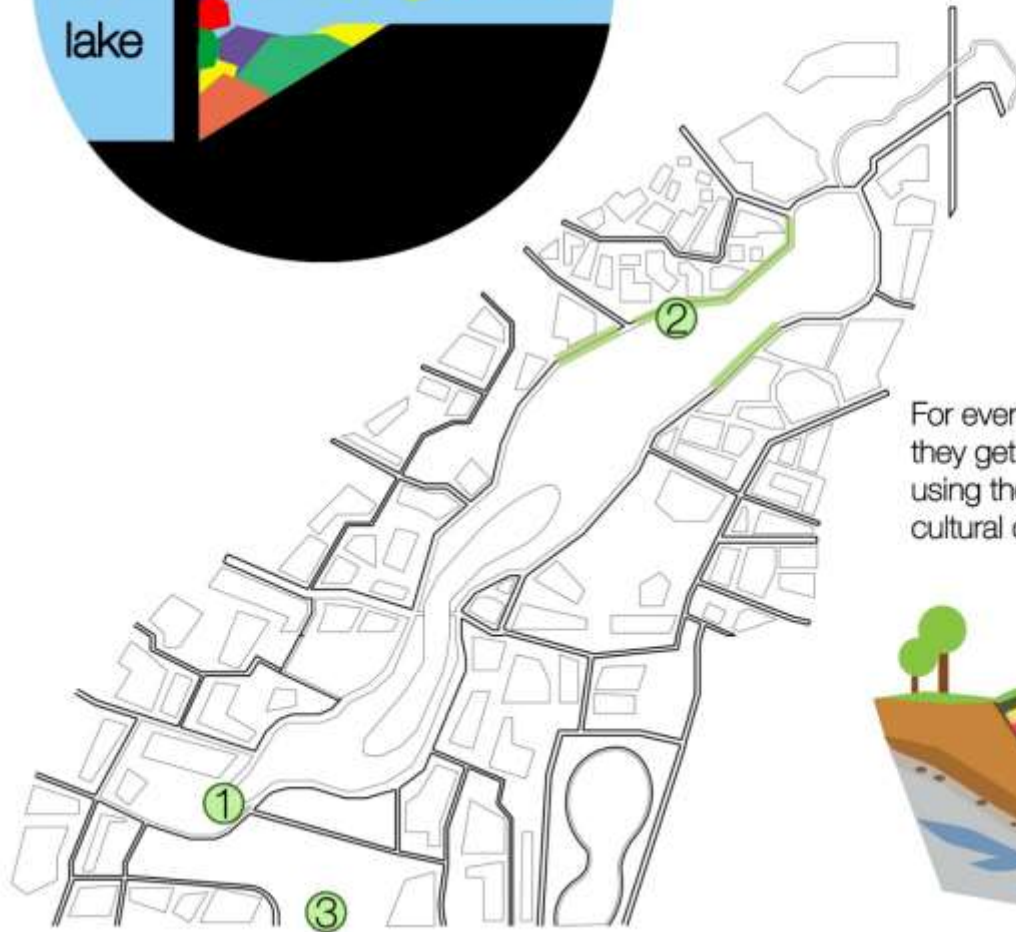
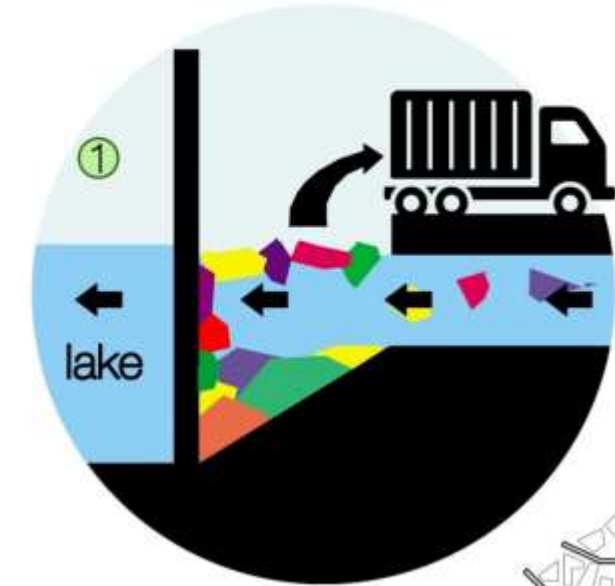
integrated water management
(WTP & wetlands)
can be used for:

- waste water
- lake water
- rain water

Water Treatment Plant

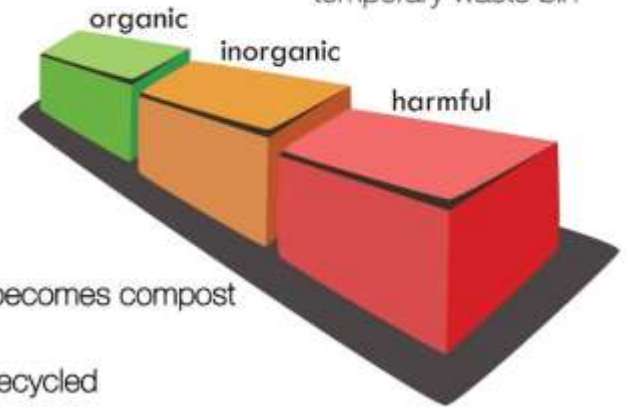


WASTE



WASTE MANAGEMENT SOLUTION

② area of highest concentration of people
temporary waste bin



- becomes compost
- recycled
- disposed in a special hazardous landfill

"FUN GARBAGE PROGRAM"

For every classified/differentiated garbage collected by the people, they get a reward in return as a program to build up their habit of using the trash bins and recycling. Rewards will be in the form of cultural ornaments to promote the betawi culture.

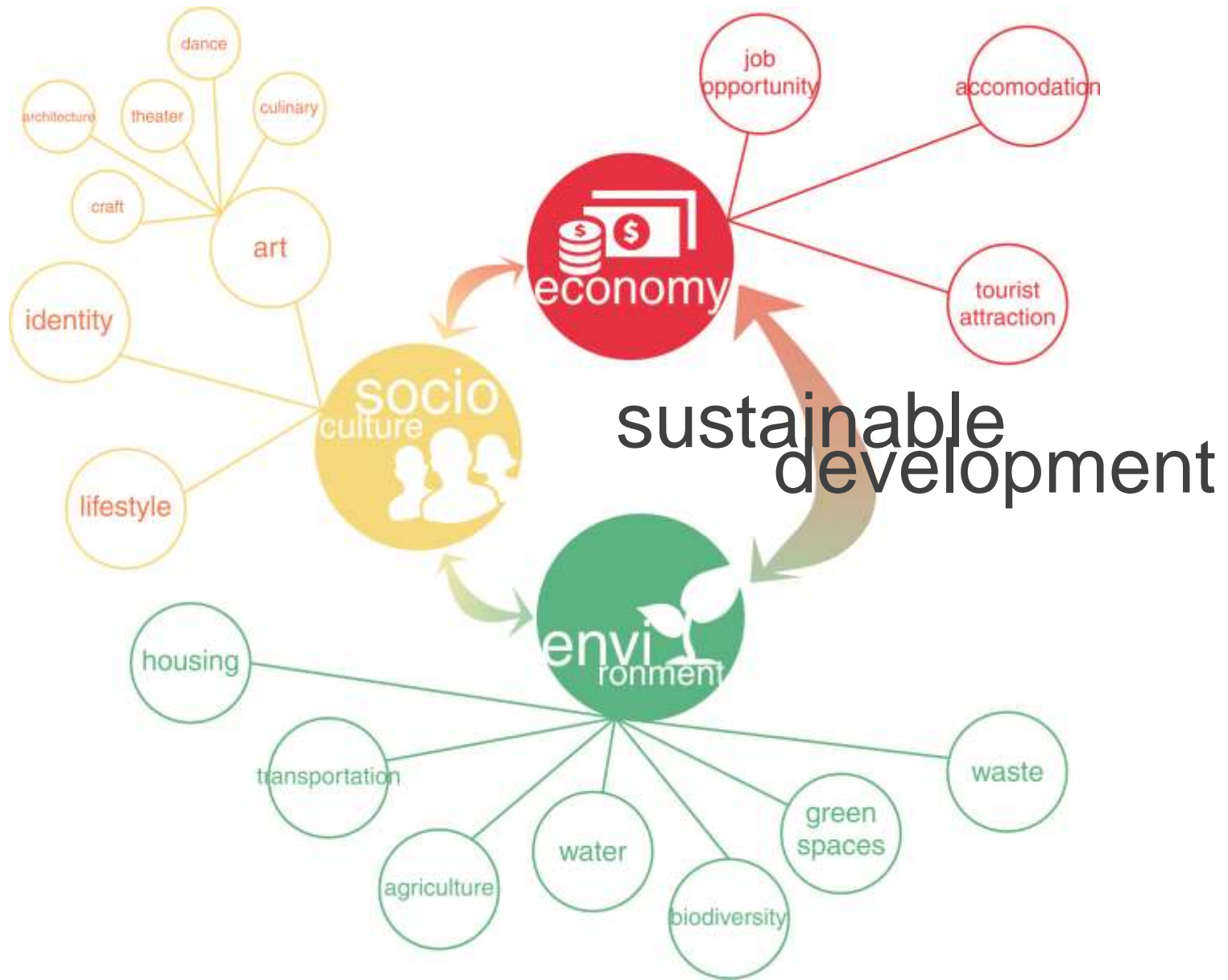
③ temporary landfill



Location of the
composting process

BUILDING THE INNOVATIVE AND SUSTAINABLE MODEL

ASPECTS	RECOMMENDATIONS
SOCIO-CULTURAL	LINK CULTURAL AND PERFORMANCE SPACES WITH NATURE
	ENGAGEMENT COMMUNITY IN CULTURAL ACTIVITIES (dance, arts and crafts, performances)
	CREATION OF RECREATION AREAS FOR THE COMMUNITY (playgrounds, places for exposing their craft)
	EDUCATING THE POPULATION IN BATAWI CUSTOMS (farm, museum) AND NATURE CONSERVATION (research centre)
	POLICY REGULATING THE ARCHITECTURAL STYLE AND DESIGN
	BOTTOM-UP CREATION OF AN ADVISORY COMMITTEE TO ENGAGE IN DECISION-MAKING
ECONOMIC	ENHANCEMENT OF TOURISTIC FACILITIES (restaurants, promenades, landscape)
	INCREASEMENT OF LOCAL JOB OPPORTUNITIES THROUGH FOMENTING TOURISTIC ECONOMY
	CREATION OF CONTINUITY IN ATTRACTION EPICENTRES IN THE AREA
ENVIRONMENTAL	CREATION OF A WETLAND TO INCREASE WATER QUALITY
	IMPROVEMENT OF THE WATER AND SEWAGE TREATMENT PLANT
	ENHANCEMENT OF WASTE DISPOSAL SYSTEM
	NEW GREEN INFRASTRUCTURE DEVELOPMENT IN THE AREA



Setu Babakan

....building a model of sustainable kampong

