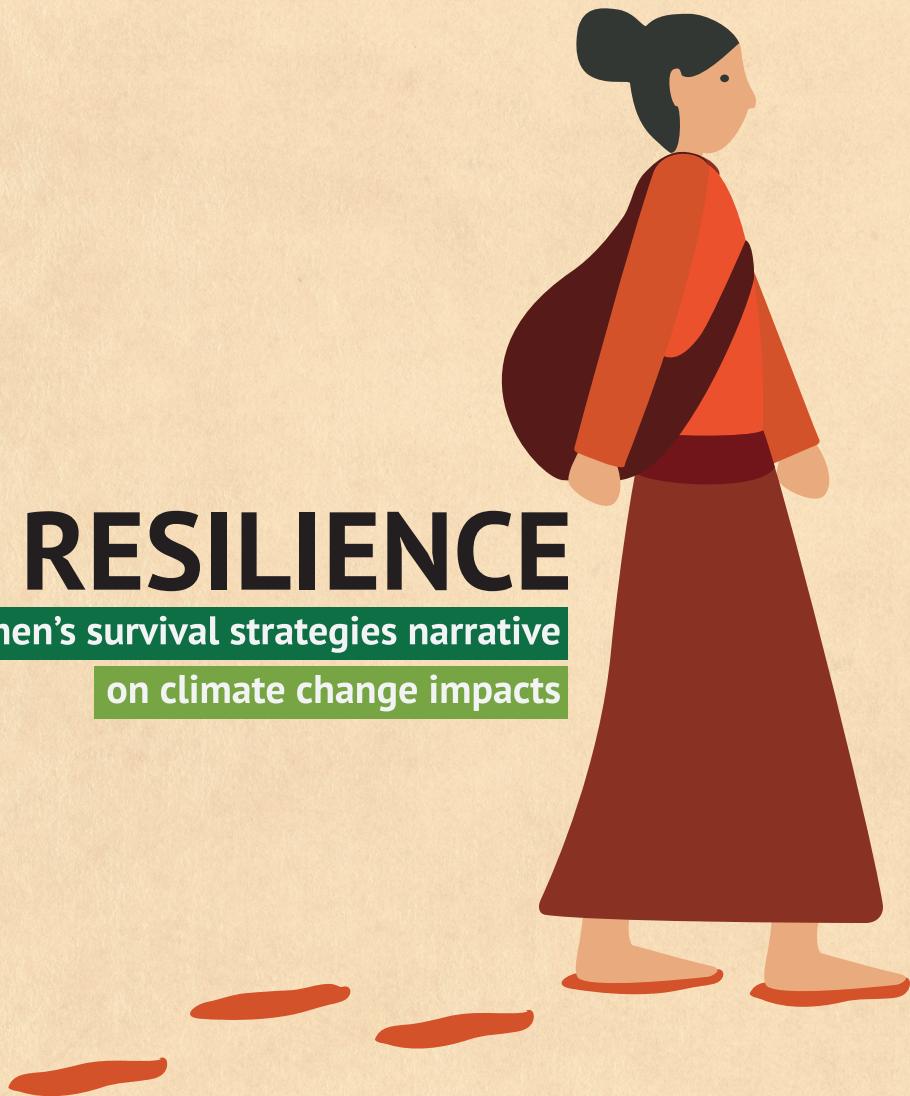


# HIDDEN RESILIENCE

Women's survival strategies narrative  
on climate change impacts



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# Introduction

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Climate change as a current global development issue has become significant variable that affect community's lives and welfare. It also become threats to the survival of many communities since it is directly affect security and access to the supply of food, water, and energy which plays vital role for everyone. Economically, climate change also causing losses which have the potential to slow the realisation of the goal to improve welfare of all citizens. Extreme weather entwined with development issues also increases the risk of natural disaster such as floods, tornadoes, and landslides that cost lives and damage livelihood resources.

This study is intended to explore how the implications of climate change on the pattern of food consumption, clean water, and energy, and to see how gender affects all three. Study on the consumption pattern in the household level will also map out how climate change mitigation and adaptation efforts are carried out, by looking at gender based roles, contributions and challenges

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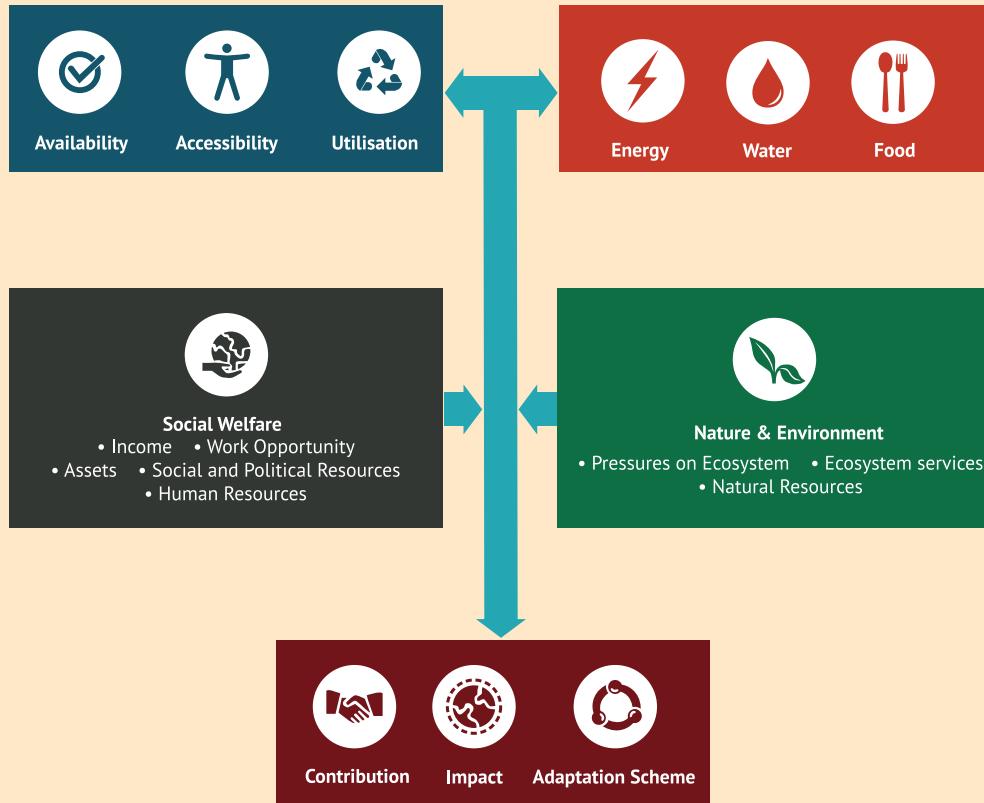
**Infographic:**

Aziz A Rifai

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# Research Analysis Framework

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This study was carried out in three regions:

- Banjarejo Village, Sub District of Tanjungsari, Regency of Gunungkidul
- Tambaklorok Village and Krobokan, Sub District of Tanjungmas, Semarang
- Sungai Batang Village, Sub District of Air Sugihan, Regency of Ogan Komering Ilir (OKI)

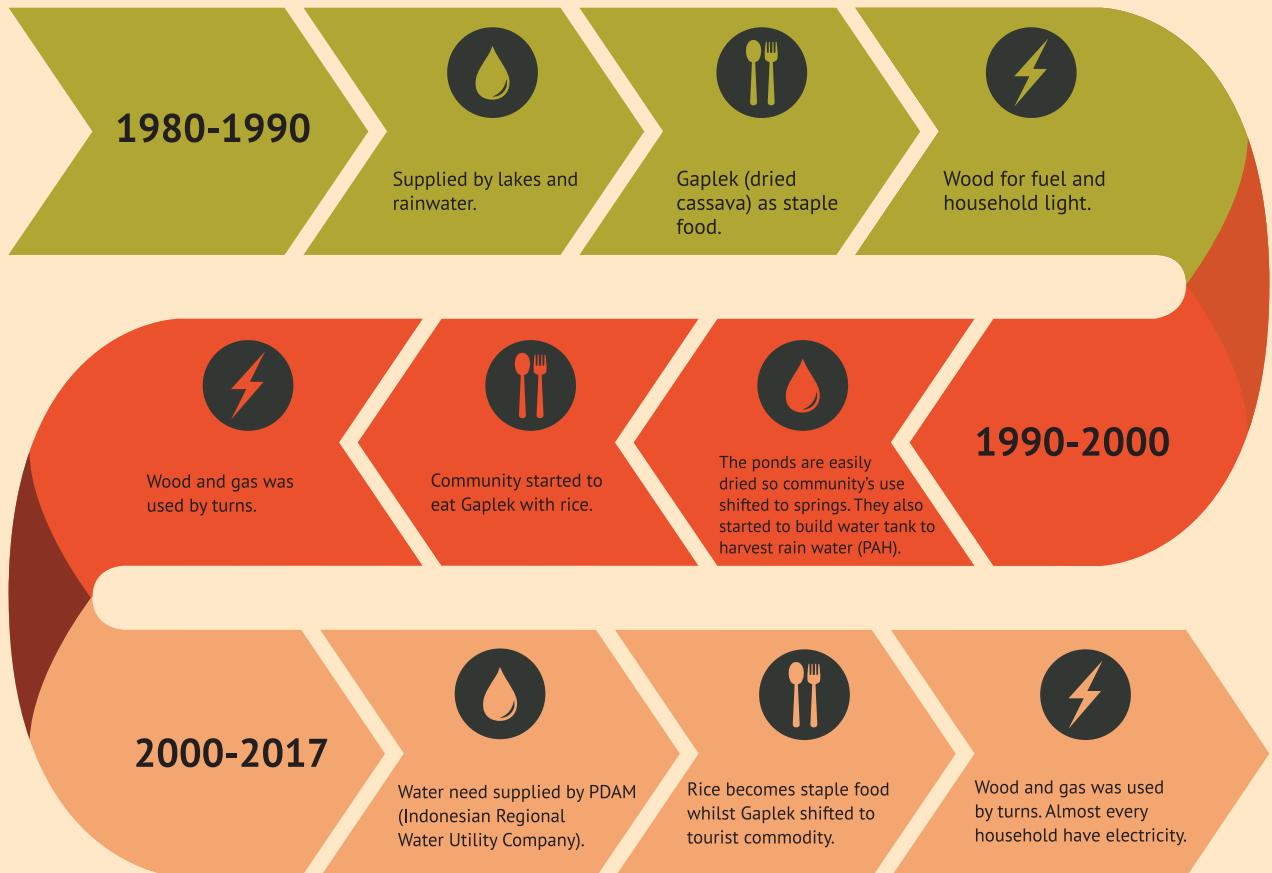
Methodology: Focus Group Discussion, in depth interview, observations, and desk studies.

Research Period: September-October 2017

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# History of Consumption Patterns for Water, Food, and Energy in Banjarejo Village

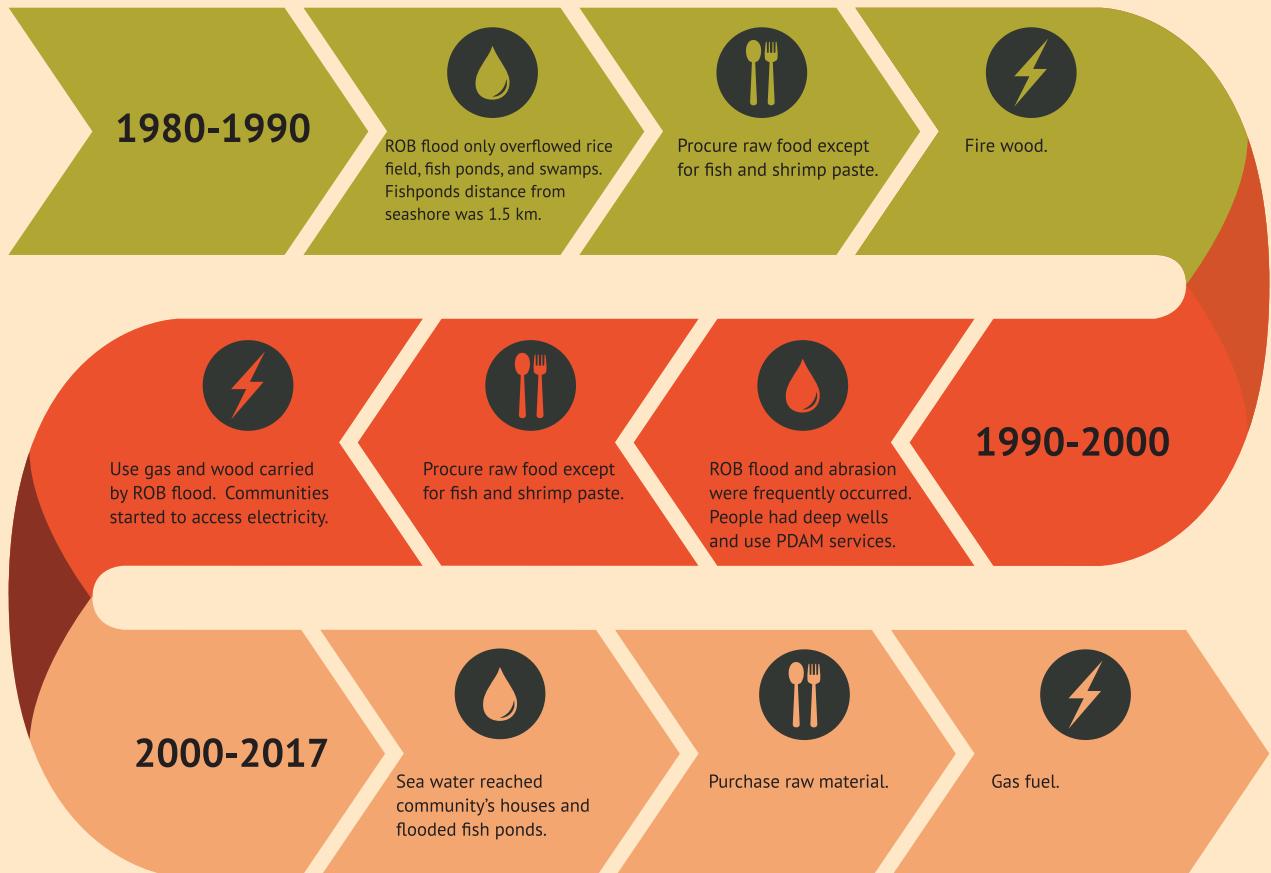
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# History of Consumption Patterns for Water, Food, and Energy in Tambaklorok Village

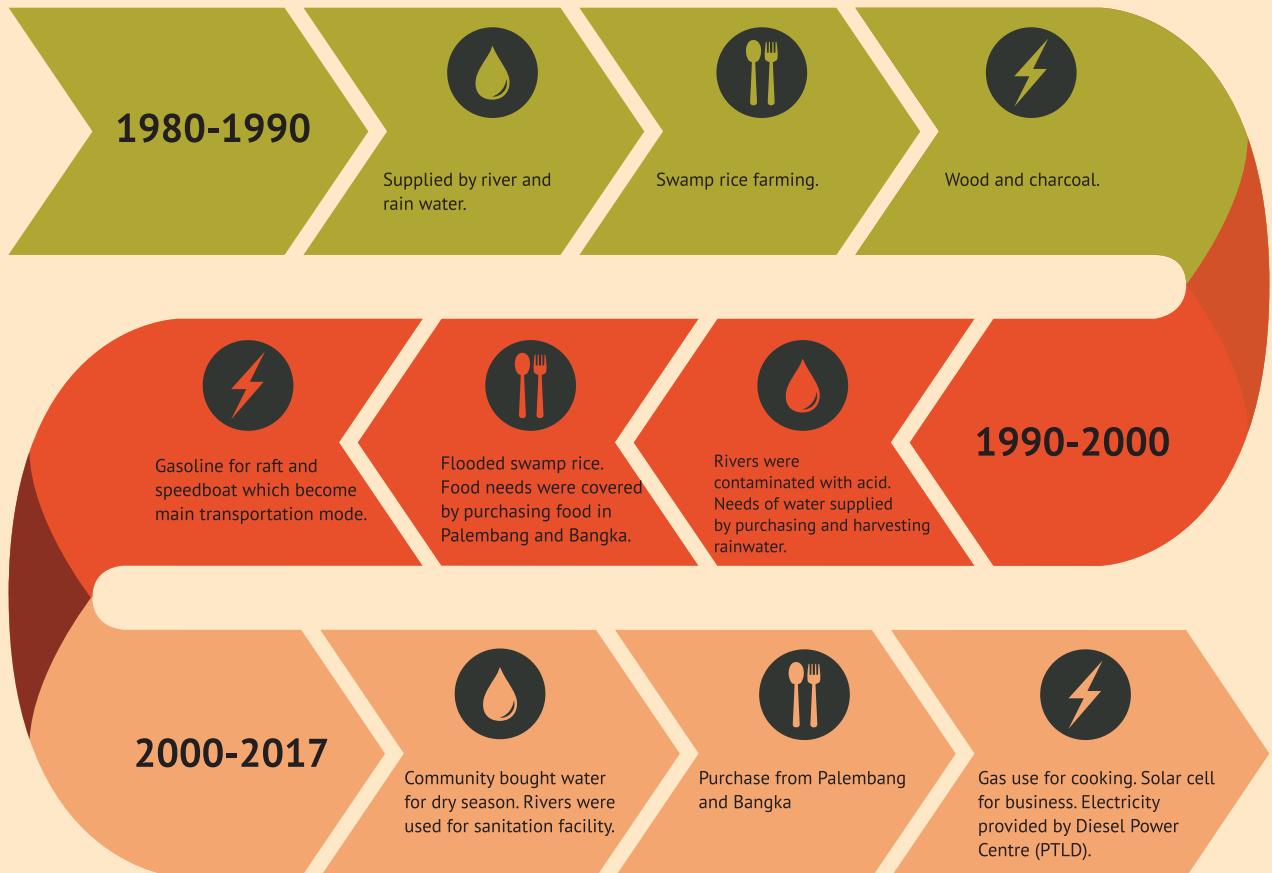
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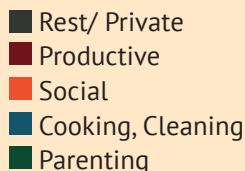
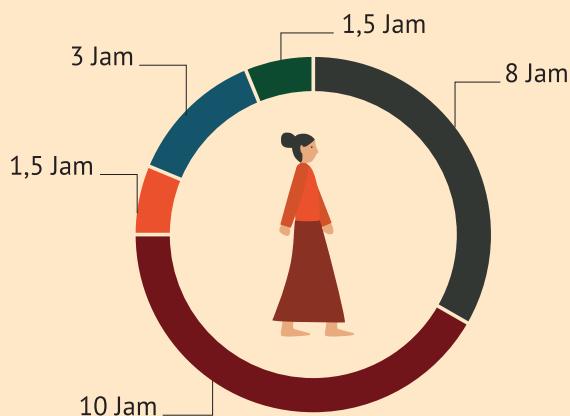
# History of Consumption Patterns for Water, Food, and Energy in Sungai Batang Village

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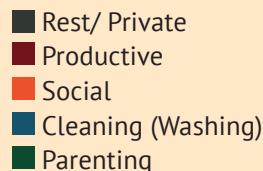
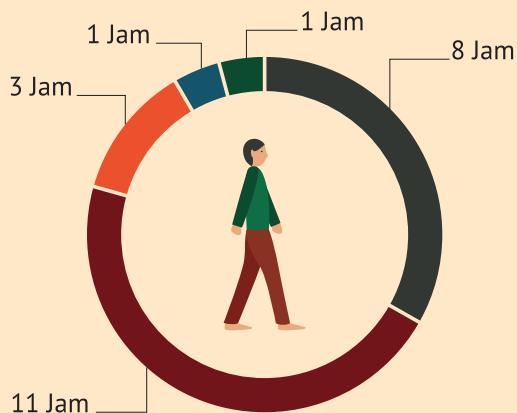


# Man and Woman Daily Activities Cycles in Banjarejo, Tanjungsari and Gunung Kidul Village

Time allocation for farmers (woman)



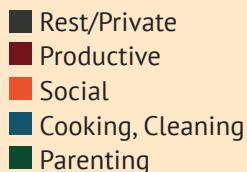
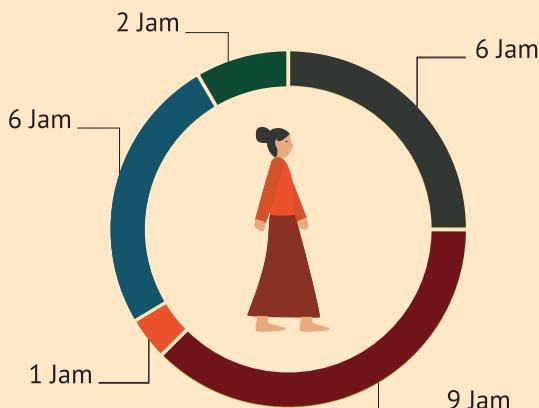
Time allocation for farmers (man)



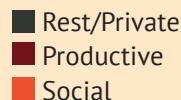
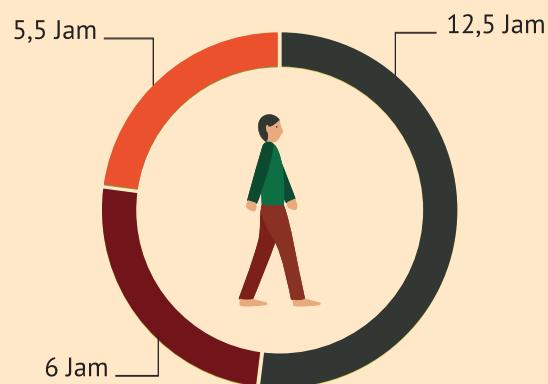
In Gunung Kidul, man and women contribute different workloads on domestic chores and parenting. Infrastructure development for clean water facility (such as water tank and PDAM pipes) reaches household and significantly reduce time and load allocation for housework (collecting water, cooking, washing) previously carried out in different gender roles.

# Man and Woman Daily Activities Cycles in Tambaklorok, Tanjung Mas, Semarang

Time allocation for shrimp paste female labour and fisherman's wife



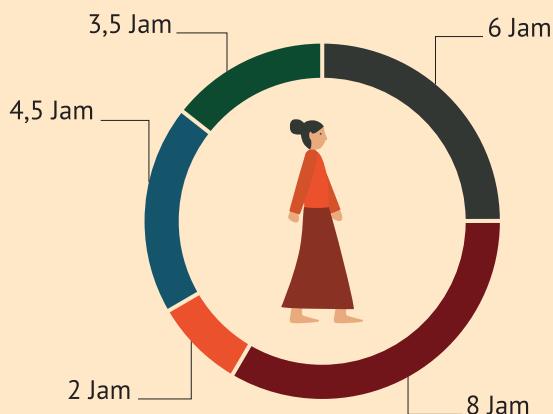
Time allocation for fisherman



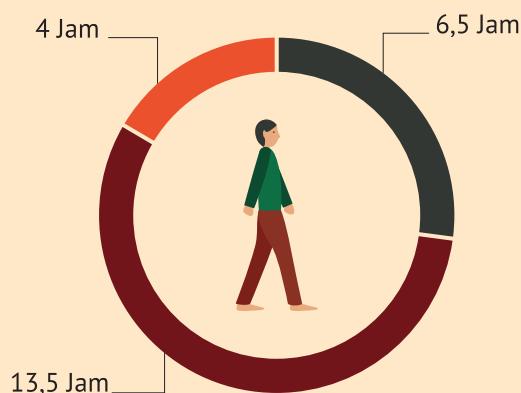
In Semarang, women's housework load is higher during ROB flood especially for cleaning the house and saving furniture or food for the family. Time allocation for fisherman describe how they only goes for short distances due to fuel consideration. All fishermen have different activities during day time, such as resting or fixing out their boat. Women though, other than become labour for shrimp paste industry also cleaning and selling their husband catch. Man are embarrassed to sell their daily catch to the market or middleman.

# Man and Woman Daily Activities Cycles in Sungai Batang Village, Air Sugihan, Ogan Komering Ilir

Time allocation for fishermen's wife



Time allocation for fishermen



- Rest
- Productive work
- Social
- Cooking, cleaning the house, washing, collecting clean water
- Parenting

- Rest
- Productive (catching and sorting out fish)
- Social

In Sungai Batang, women's housework load is higher during rainy season due to their responsibility in providing clean water for the family by harvesting rain from the roof. Rheumatics complain were mostly found on women. Man (fisherman) are avoiding sea during high waves. Since the last couples of years, wealthy people start to breed swallows for livelihood alternatives.

# Climate Change Impact on Gender



Disease: Rheumatics on women, itchininess and diarrhoea for children and the elders



Reproduction health: STD Transmission (HIV) in women and children



Early marriage



Child labour



Safety risk on men



Increasing housework load on women

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# Mitigation and Adaptation in Gunung Kidul

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## Mitigation

- Community based measures on water resource in critical land
- Planting 1 tree movement
- Urban forest
- Community's nursery (KBR)
- Solar power system to bring the water out
- Semoyo Village nursery
- Wind Power (PLTA)
- Micro hydro technology development

- Planting vegetables on plastic pot
- Using manure for fertiliser
- Energy saving stove using sawdust as fuel
- Waste utilisation (stick, log) for handicraft
- Forest farming management

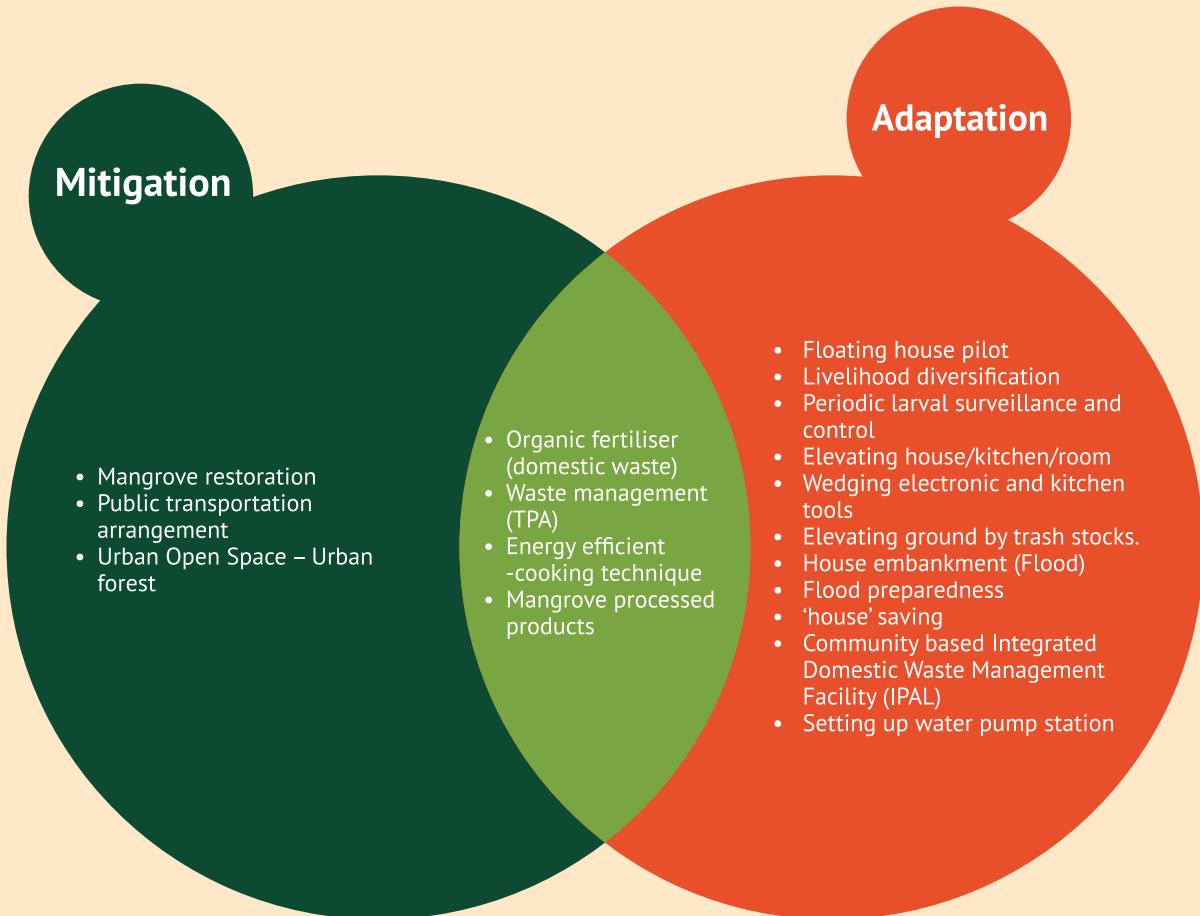
## Adaptation

- Daily consumption pattern: carbohydrate and vegetables.
- Disaster preparedness (SAR)
- Building water reservoir and trenches
- Building irrigation canal-network
- Developing water resources for farming
- Water pump provision
- Developing irrigation infrastructure and agro-machinery
- Farm leasing for additional livelihood
- Livelihood diversification
- Cooking in the field during dry season
- Family saving (cattle and crops)
- Utilisations of non-timber forest products (honey bee and honey village)
- Wooden and food barn (Paddy and Seeds)
- Neighbourhood distributions of water and electricity
- Rotating savings of goods and cash group (Arisan)

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# Mitigation and Adaptation in Semarang

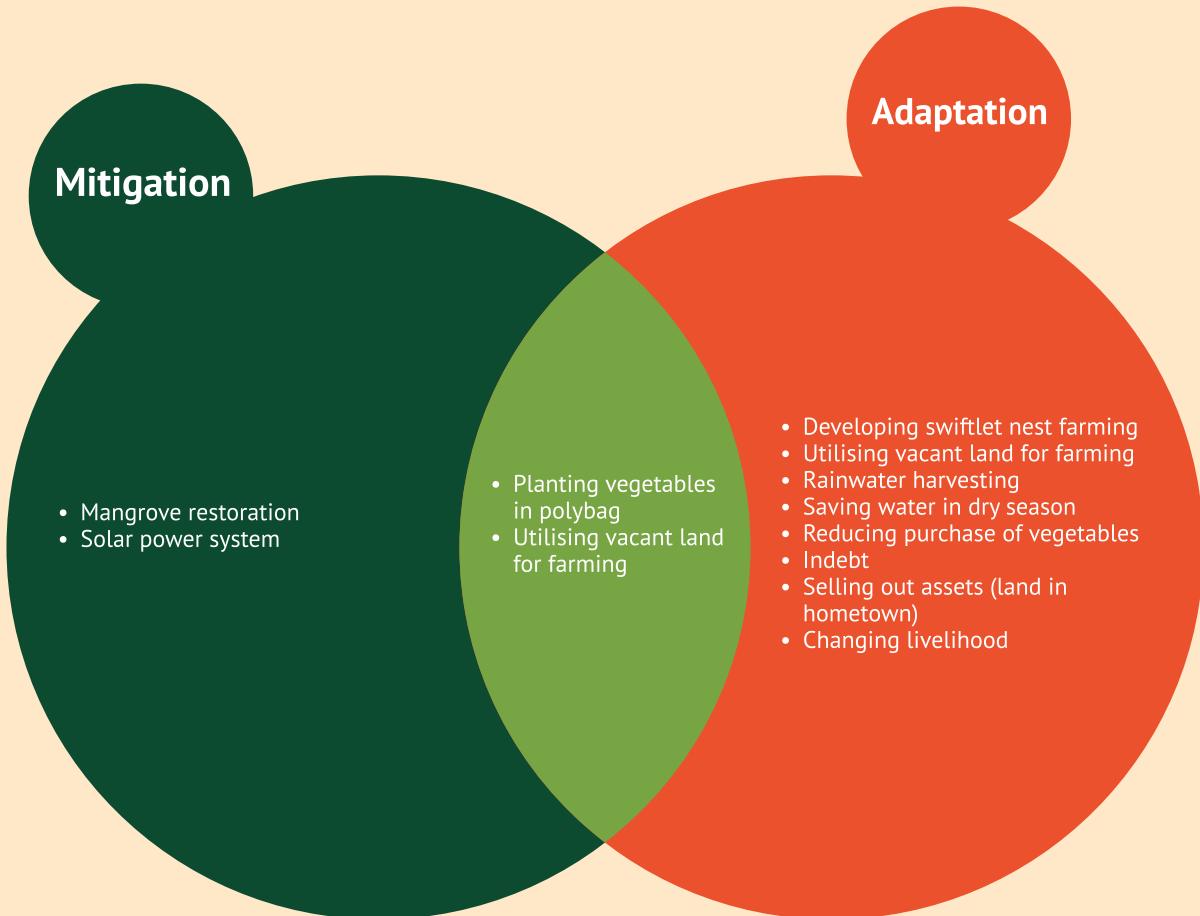
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# Mitigation and Adaptation in Ogan Komering Ilir

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## Gender, Climate Change, and Consumption Pattern: Banjarejo Case Study (Gunung Kidul)

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**Sri\***: A woman, head of the family who also acted as a breadwinner. Her family consist of the elders, her brother, children and children in laws, and grandchildren. Illiterate and work as a farmer. Her family needs of water are met by using their neighbour's PDAM. They consider it cheaper and more flexible since they can stop using when rainy season starts.

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*"For daily use, Sri sells half of her crops. When she has no money, her daily foods were met by getting loan with 15 days of due date. Sri also renting her land for unforeseen expenses or special incident such as cattle's feed, hospital fee for the elders who lives in her house, or purchasing water tank when the PDAM water stops running unexpectedly for 2 weeks. Poor people like Sri are usually have their own water tank with size of 10.000 litre. For daily food, she and her family eat rice and vegetables, occasionally they also afford fish."*

\*: Not her real name.

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## Gender, Climate Change and Consumption Pattern: Tambaklorok Case Study (Tanjung Mas, Semarang)

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**Aminah\***: A Woman who is head of the family and work as shrimp paste labour without having any work contract. Being illiterate and having no social protection. Dependent on the occurrence of the subsistence pattern of communal schemes. On the critical time, she would be in debt at the neighbouring shops. To keep ROB flood from entering the house, Aminah had to elevate her house periodically. She got the material needed by saving money in the nearby home improvement shop. Aminah also had to buy second quality soil which usually muddy for the house.

*"As a shrimp paste worker, Aminah daily wages is Rp. 60.000. For their food, she and her family are used to have 3 times meal with compositions of rice, tofu or tempeh. Fish becomes side choice when they have spare money. The average daily groceries expenses for the family is Rp. 50.000. She also shares groceries expenses with her children's family especially for the big expenditure such as electricity. They use credit electricity and subscription to artesian well for Rp. 20.000/week. If she's short of money, she will make double payment in the following week. For daily cooking Aminah uses gas for fuel. Until now Aminah had no courage to use gas on the stove out of fear of exploding."*

\*: Not her real name

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## Gender, Climate Change and Consumption Pattern: Sungai Batang Case Study (Air Sugihan, Oki)

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**Ica\***: Ica was 16 years old at the time of this study. She is a housewife, married at age of 12 and has 3 children under five. Her husband is a fisherman labourer. Ica family lives at the edge of estuary which faces directly to the sea of Bangka. Her house is walled with bamboo, uses nipah leaf as roofs, and has plenty of holes in the floor. When a strong wind comes, the wall and roof would most definitely fly off.

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*"The condition of nipah Leaf as roof does not allow Ica's family to harvest water. Used as a water tank, a family drum is put in her family house elsewhere. In the dry seasons, ica's family would buy drum water for bathing, washing clothes and dishes for price about Rp. 30.000 per drum. For cooking needs, she bought Rp. 70.000 per drum. Their food never change, only small fish and never vegetables since the last are consider expensive. "*

\*: Not her real name

## Conclusion:

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1

Gender construction put women in the position to bear layered impacts due to the climate change, in relation of family consumption pattern for food, clean water, and energy.

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2

Even though study found men's typical vulnerability due to the climate (i.e. safety during working at the sea), but men keep their privilege in family consumption pattern priority. For example, steady budget for cigarette in various economy conditions..

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3

Livelihood diversification are made both by men and women. The options will be influenced by different role and space between man and woman.

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4

Women contribute significantly to the adaptation effort in individual, familial, and smallest community level. For example, in re-arranging food pattern, family financial management, clean water consumption pattern in critical times, and utilisation of various energy sources. Unfortunately, the recognition for these contributions is still low and hidden.

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5

Mitigation practices in reducing non-renewable energy policy create challenges in relation with transfer of technology. Study found the marginal groups such as the elderly women is having difficult time in facing this change of consumption pattern.

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6

Space and control from women are still limited at the formal level, such as in state where crucial process in decision making in terms of policy and adaptation program are taken.

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7

Positive and negative adaptation practices that instead reduce community's capacity and welfare were found.

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8

Appropriate public services could help reduce climate change impact to women, such as reducing time allocation for domestic work and giving social protection for vulnerable groups.

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## Recommendation:

1

Women and men are facing climate change situation and impact differently, thus appropriate consultations are needed to establish policy, program, and mitigation or adaptation activities in various level such as national, regional, or local (village). Such efforts are aimed to make the policy, program and mitigation precise and beneficial for both men and woman.

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2

Strengthening women participation and leadership in mitigation and adaptation efforts in various level, by means of recognition and appropriate capacity building.

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3

Protection and special scheme for vulnerable groups in climate change mitigation and adaptation efforts through strengthening social security, both by state policy and public services and communal based scheme.

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4

Transfer of technology in managing sustainable resources, by considering different conditions, needs, and challenges faced by men and women, not to mention typical conditions of vulnerable group.

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