



Merging the social with the technical: Utilising a Gender Transformative Approach in smallholder aquaculture development in Bangladesh

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Please note

- GTA used as an instrumental approach to sustainably engage women in small holder aquaculture
- GTA merged with technical aquaculture projects
- The rationale is that aquaculture adoption and equitable benefits can be enhanced if both technical and social issues that constrain women from applying their aquaculture knowledge are addressed
- AQ technologies served as an incentive to engage in critical reflections and dialogue around social issues

The image is a composite of two photographs. The left photograph shows a woman with a bindi on her forehead, wearing a white bangle, holding a large white plastic bag. The right photograph shows a person's hands holding a large, silver fish. The background of the right photo is a textured, light-colored wall.

Homestead pond polyculture technology for women

- At homestead to **enhance productivity of underutilized ponds**
- **Training modularized and repackaged** to interact with different stages of production cycle and
- **Merge technical with social to address** any **household level** social issues that may arise as result of applying new knowledge
- **Address community level social issues** through community theatre

Sample of Modules

Conventional Technical Training on Homestead Pond Polyculture Technologies	Accompanying Gender Sessions developed from HKI Nurturing Connections Manual: sample activities
Introduction, rules, commitments	Demonstrating and building trust (whole family)
Pond Preparation	Power hierarchies; obstacles to listening
Stocking Management	Interactions between identity and decision-making
Post-stocking management	Who decides about the pond (whole family)
Horticulture and family nutrition	Intra-HH allocations of food and power; self-esteem building
Harvesting, restocking, marketing, income, expenditure	Assertiveness training
Gender Awareness/ Nutrition Education	Exploring gendered behaviors (with husbands)
Linkage event with value chain actors, community members, etc.	Community Theatre skits on gender and livelihoods, Community meeting on gender norms
Project review, future planning	Change in gender norms over time

Family members involved

No demonstration farmers

Smaller groups

Technical merged with social

Standard approach served as control




Adoption study

Outreach designed

HKI conducts TOT

Studies designed

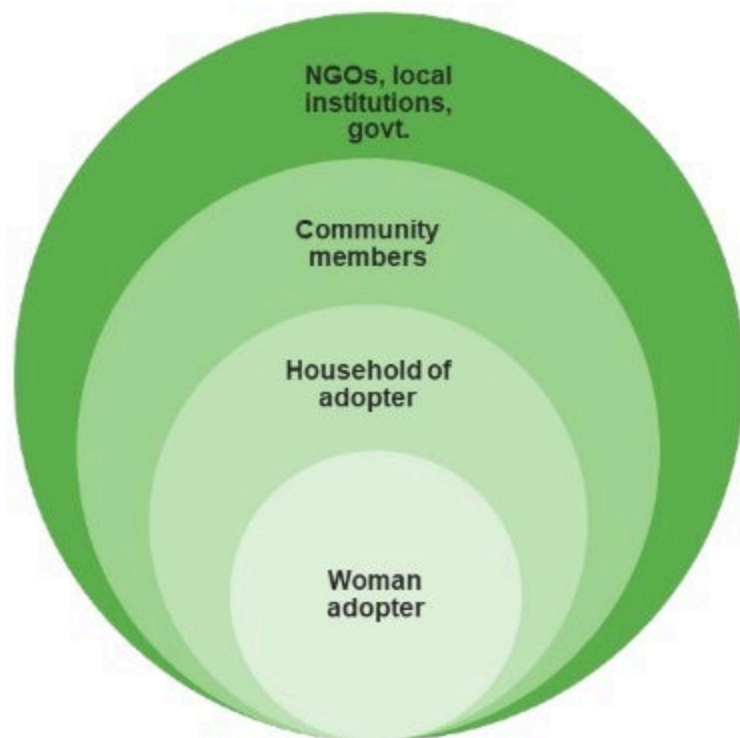
Sessions initiated

A woman with a red bindi on her forehead is smiling broadly while holding a large gill net. The net is filled with small fish and has several green floats attached to it. She is standing in a rural, open field with trees in the background under a cloudy sky. The image is overlaid with a semi-transparent dark grey box containing text.

Harvesting technology for women

- **Fish harvesting technology (gill net)** designed for women to enable frequent harvesting of nutrient-rich mola from homestead pond
- **Sparking Household reflection and dialogue** to reduce normative barriers to women harvesting: Adapted from HKI's Nurturing Connections manual
- **Sparking Community reflection and dialogue** to reduce normative barriers to women performing a non stereotypical role

Case 2: Multi-scale GTA +Gill net technology in smallholder aquaculture



At the **household level**, tools used include 'hopes & fears', demonstrating and building trust, 'power hierarchies', access to nutrition, obstacles to change, 'who decides', and exploring gendered behavior.

At the **community level**, tools used include 'hopes & fears', 'looking at our attitudes', 'acting like a man/woman', 'how will we empower each other', gender equality solutions, 'the man box' (masculinities) and a historical timeline of gender changes.

Overarching Research Question

What is the impact of combining a multi-scale gender transformative approach together with a women-targeted technology on women's empowerment and on technology adoption?



How did we measure?

Design:

Mixed methods; longitudinal quasi experimental studies

Qualitative:

- Change in norms: GENNOVATE and other PRA tools

Quantitative

- Empowerment: WEFI, adapted WEAI
- Changes in mindset: attitude scales : GEM
- Self-efficacy, power within: Psychometric measures
- Technology uptake, production, income, consumption



Main evaluation tools

Bangladesh

Adapted WEAI and WEFI Empowerment Survey (ES)

Gender Attitude Survey (AS)

Dimensions	Empowerment +Attitude Survey
Resources: Critical consciousness	Pa: Self-efficacy Pb: Self-confidence
Resources: Assets	C: Land & ponds L: Credit Hb: Time allocation
Family	I: Gendered perceptions K: Mobility
Decision making	Ja: Decision making
Leadership	Na: Leadership
Collective action	Nb: Group membership

Project evaluation designs

AIN Gill net technology

- Gill net piloted with 143 women from 18 villages
- HH GTA piloted in 80 (T2) households across 10 villages
- Only gill net was provided to 63 (T1) households
- Community GTA piloted in the same 10 villages with 251 community members
- Control group of 44 (C) women who did not participate in any of this research activities
- Baseline and endline assessments carried out in all 18 villages
- Longitudinal empowerment data on 187 HHs and attitude survey with 458 (207 control) community members

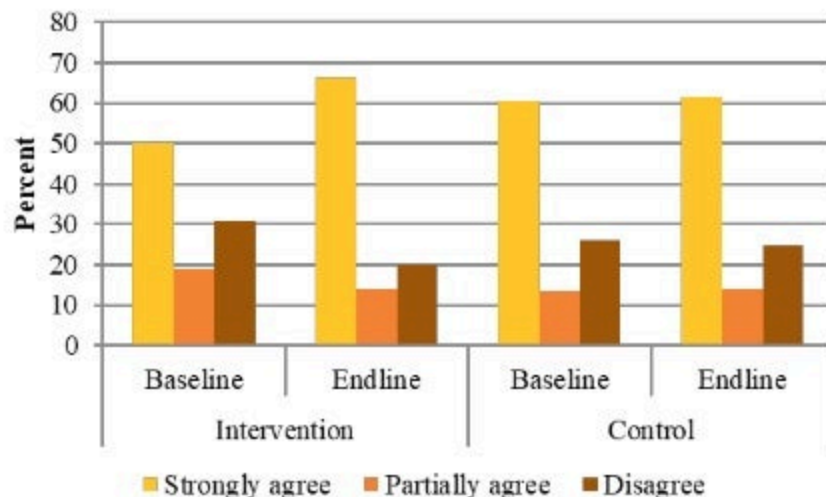
CSISA-BD homestead pond aquaculture

- 100 women trained on homestead based pond polyculture with vegetable cultivation.
- 50 trained using the regular CSISA –BD extension method
- 50 provided with a redesigned extension package
- Longitudinal data on 100 project Households

Preliminary findings

- GTA integration has helped explore and address the attitudes and beliefs that prescribe women's roles. GTA softened backlash around technology uptake and new roles for women
- Technologies conducive for women +GTA strategies can prompt independent involvement and decision making
- Women report the positive influence the involvement of their spouse and family members had on their adoption
- Data shows positive change around collaboration between family members, target group consumption, gender attitudes and self-efficacy

Either a man or a women could successfully operate or manage a fish pond





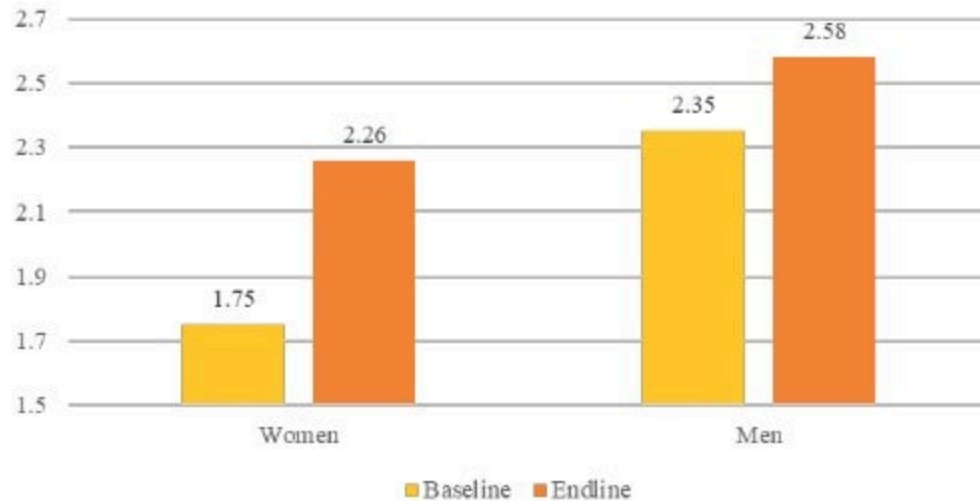
Homestead pond AQ+GTA findings

Gender Attitudes at household level

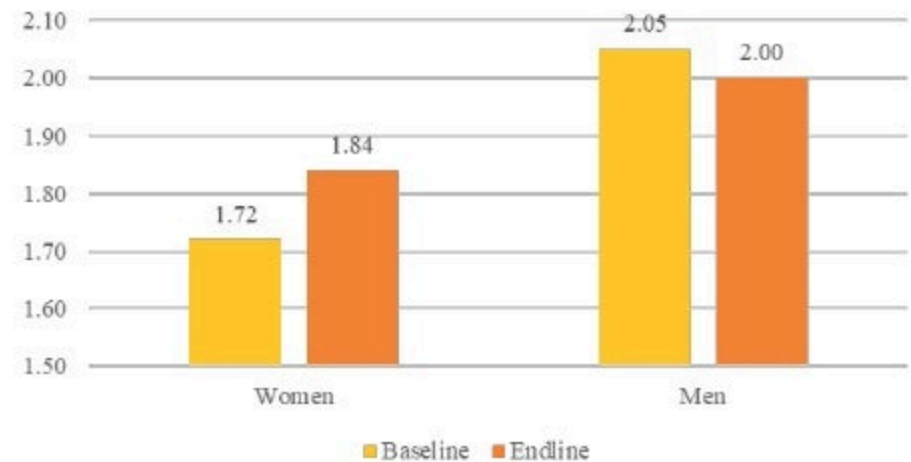
Opinions	Diff-in-Diff
Perceptions (Women's Views)	0.382(4.33)***
Perceptions (Men's Views)	0.275(2.68)***

Value in the parentheses indicate t-value
Significant Level: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Project Farmer



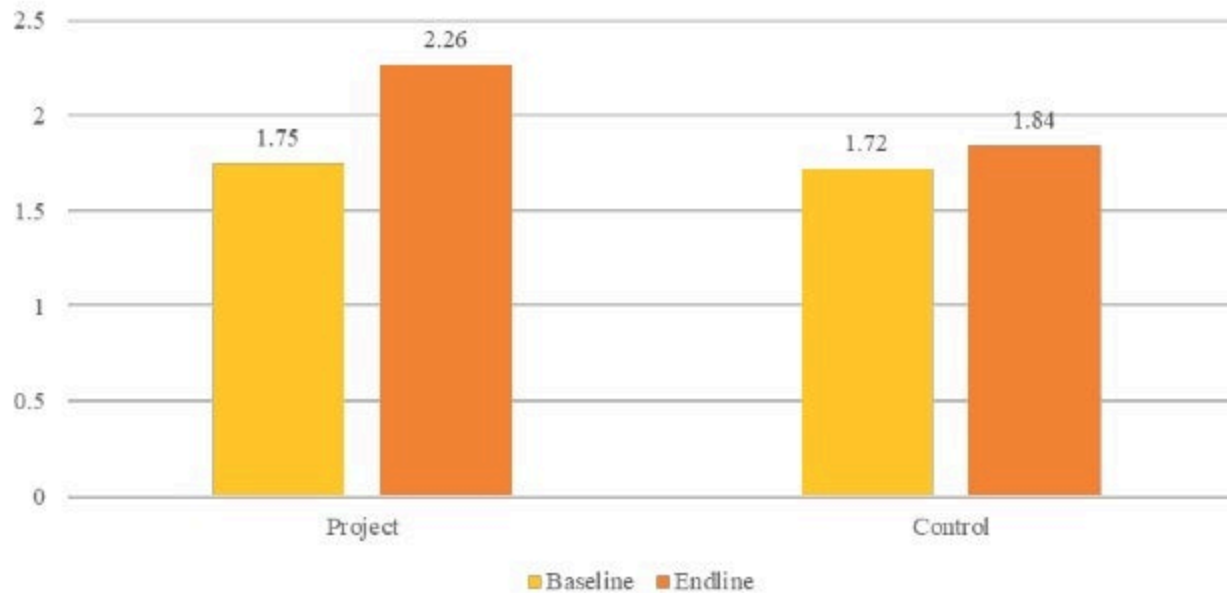
Control Farmer' View



Women's Self Efficacy

Opinion	Diff-in-Diff
Self Efficacy (Women's Views)	0.09 (4.39)***

Value in the parentheses indicate t-value
Significant Level: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$



Changes in per unit Fish and Vegetable production based on intervention category

Resource	Treatment	Project (T)	Control (C)	Change (Kg)/ Diff (baseline-endline for treatment)	Diff-in-Diff/ Actual Change (Kg)
Homestead pond (Fish Production)	Baseline (Kg/HH)	57	54	28	8 (2.95)***
	Endline (Kg/HH)	85	74		
Homestead garden (Vegetable)	Baseline (Kg/HH)	55	43	35	8(2.62)**
	Endline (Kg/HH)	90	73		

Value in the parentheses indicate t-value

Significant Level: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Farmer perceptions from CSISA-BD

Because our husbands, father in laws, and mother in laws were included in some sessions, it was easier to for them to understand what we told them. They don't create any barriers to our participation (woman SGD participant).

Since they (other family members) were included they heard it from the masters themselves. They believe us now about the benefits of investing (woman SGD participant).

Farmer perceptions from CSISA-BD

There was an exercise with family members on distributing food and on how we usually make sure they eat better before eating ourselves. So usually we don't have much on our plates. In the past, men didn't notice this. As long as they got a big piece or the head, they were happy. Now, following this exercise men check what we are eating. They acknowledge that we work hard all day and make sacrifices and should eat equally (Consolidated comments across many women SGD participants).

Our husband's ask us before purchases more than before. It is because husbands are aware of the benefits of asking their wife's opinion and since we women were able to learn a lot from the training (woman SGD participant)

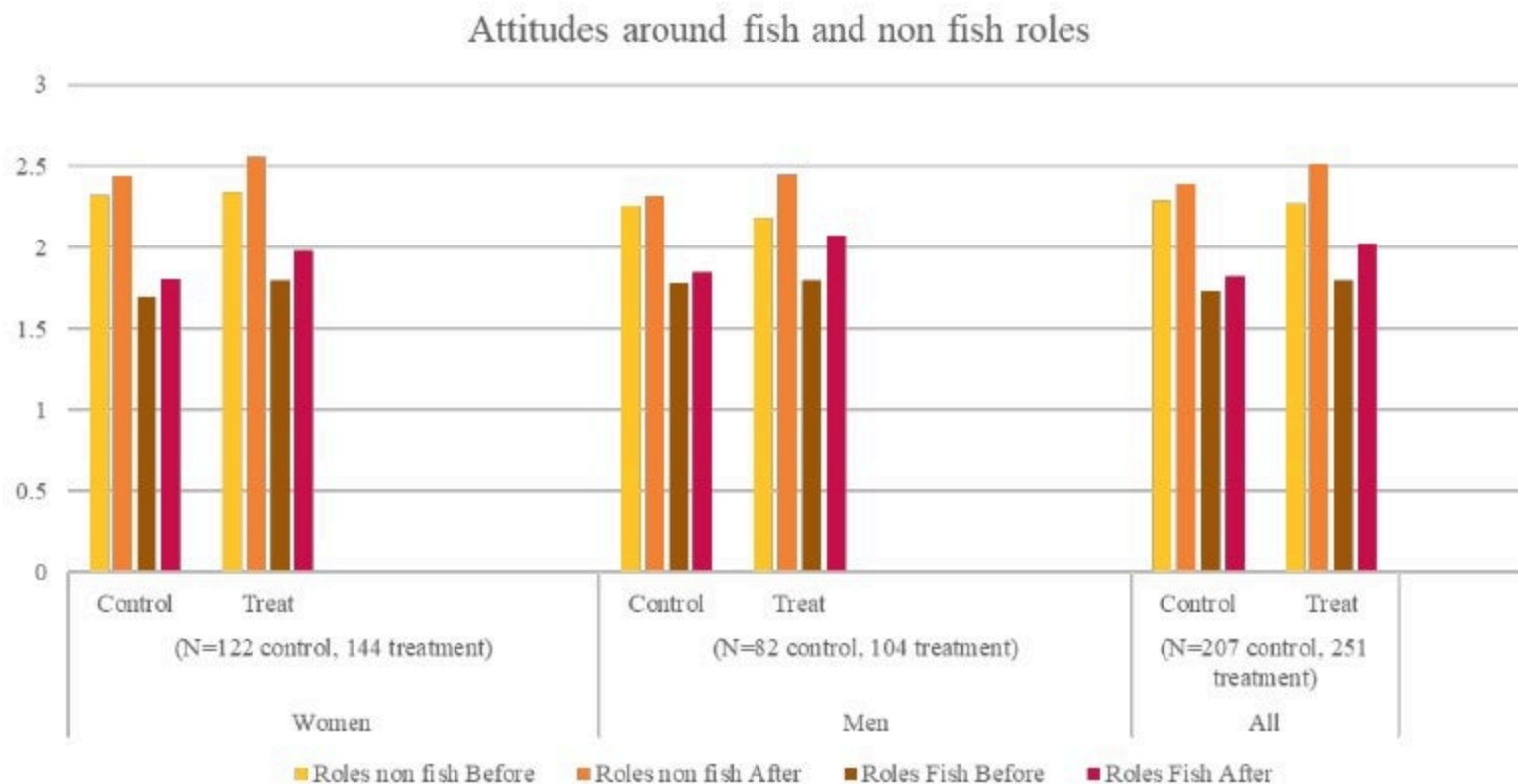


GTA+ Gilnet emerging results

GTA+Gillnet emerging results

- Changes in attitudes of men
- GTA softened backlash around technology uptake and new roles for women
- Familial collaboration over technology use
- Changes in self-efficacy amongst women
- Consumption of mola by target group

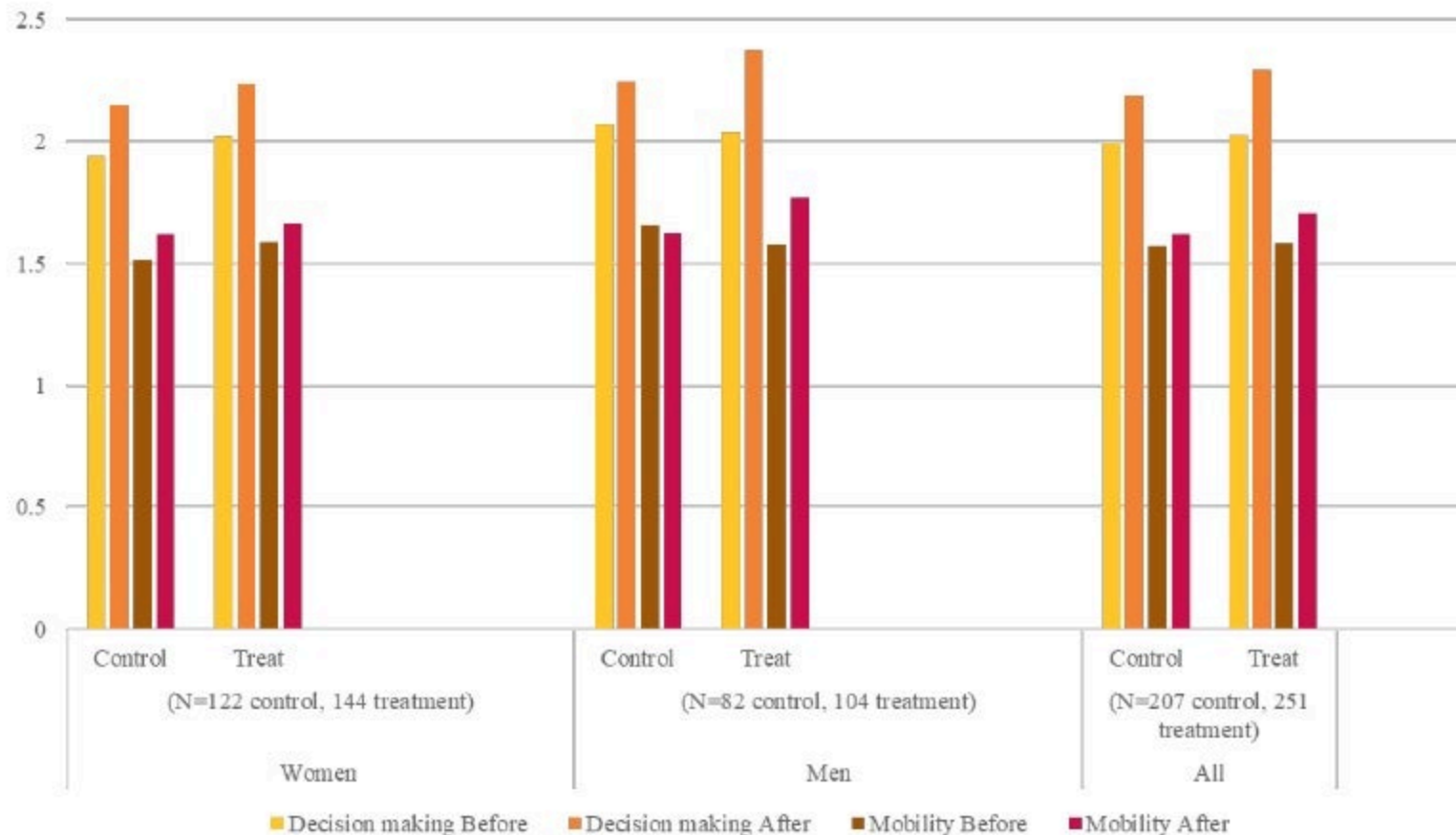
Community Attitudes: Fish and non fish roles



DID analyses showed a significant attitude difference for men in all categories

Community attitudes around mobility and decision making

Attitudes around decision making and mobility



DID analyses showed a significant attitude difference for men in all categories

Comments from participants about Gillnet +GTA

I told him to stay back for the training for fish specially....for the “Shukhi Poribar Dhukhi Poribar [Happy Family, Sad family]” skit which was about husband and wife....I used to tell him that he needs to learn about all this. I already knew from before how to live life (woman in-depth interviewee)

Yes, there was change in my husband. If I get late, he serves himself rice. He keeps everything organized. Didn't you see that since we had guests today, he brought forth the chairs and everything? (woman in-depth interviewee)

Thank You



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