



INITIATIVE ON  
Gender Equality



December 2022

## Stakeholder Workshop Report

# Gender Transformative Approaches (GTA): Reducing normative constraints that limit women's resilience to climate change impacts

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## Executive Summary

The One CGIAR Harnessing Gender and Social Equality for Resilience in Agrifood Systems (HER+) Initiative hosted a workshop in Nigeria for stakeholders in the cassava, catfish, and chicken value chains between November 10 – 11, 2022, at the International Institute of Tropical Agriculture, Ibadan, Nigeria. The workshop's main objectives were to: i) identify and map the key stakeholders in the catfish, cassava, and chicken value chains; and ii) understand which norms constrain women and other groups from participating in and benefiting from work in the different nodes of the value chain. Seventeen (17) stakeholders (8 men and 9 women) from the Academia, Non-Governmental Organizations (NGOs), Government Departments, private sector, producer organizations and other value chain actors with a national/ regional perspective of the value chains of interest participated in the workshop.

Adopting a participatory approach that engendered mutual interaction and learning, discussion with the different actors across the three value chains was facilitated by the application of three main tools: Tool 1: Background information on climate change impacts on the Value Chain of interest; Tool 2: Mapping of value chains Adapted from Linda, Mayoux and Terrilon; and Tool 3: Actor Analysis Tool. Tool 1 elicited information about how critical events, including climate change-related events, affected the value chains during the past ten years. Tool 2 was applied to map the value chain actors involved in the value chain from a gender perspective, while Tool 3, the Actor Analysis tool, was used to profile the various chain supporters in the cassava, catfish, and chicken value chains.

Stakeholders across the three value chains reported significant climate-related events that affected men and women actors. These include flash floods, irregular rainfall, and drought; These events negatively impact value chain activities, thereby affecting the performance and livelihood of women and men value chain actors. However, stakeholders agreed that women value chain actors are usually disproportionately affected due to their poor financial status, limited access to productive assets, and prevalence of restrictive norms that place them at a disadvantageous position. Nevertheless, for both women's and men's conditions, climate change challenges are worsened by the impact of Covid 19, increasing inflation, changes in Government policy and incessant insecurity prevalent in the country.

Non-climate-related events affecting actors across the three value chains include – the inconsistent market for produce and products, a delay in the disbursement of government credit and loans to farmers, and inadequate extension and advisory service. Notwithstanding, stakeholders highlighted some events that have positively impacted the activities of women and men in the three value chain. For instance, the implementation of different initiatives, for example, HarvestPlus, BASICS, and NextGen, the emergence of young entrepreneurs and the deployment of ICT and other improved technologies are positively impacting the activities of women and men in the cassava value chain. In the catfish value chain, improved research and development activities introduced improved technologies and innovations such as water parameter testing and alternative fish feed. Different actors operate at the various nodes of the value chain along the production, processing and marketing nodes. However, marked gender differences exist in the participation along the nodes, with men concentrating on production.

In contrast, women concentrate on the processing nodes, especially in the cassava and catfish value chains. Also, women are the main actors in the trading and marketing node for the catfish value chain. Value chain supporters such as cassava grower associations; politicians; traditional leaders; landowners; agro-dealers; village processing units; aggregators/bulkers; fabricators; government through agriculture development programmes (ADPs); research institutions like IITA supporting women and men in the cassava value chain have contributed to enhancing the different activities under the cassava value chain. For the catfish value chain, chain supporters include aquaculture farmer associations, extension services, transporters, ice sellers, technicians and artisans, researchers, veterinary/lab services providers, finance providers and information services providers. Across the three value chains, stakeholders confirm the prevalence of gender norms that shape women's access to resources, participation in decision-making, participation in leadership, access to credit and loans, adoption and use of technology/equipment and mobility. These norms reinforce existing bias and discrimination towards women. Men are the primary decision-makers at the household level and dictate what women can and cannot do. Men also have more access to finances than women such that in case of a setback, it is easier for them to return or pump more capital into business than their women counterparts.

In conclusion, the stakeholders' workshop provided insights into climate-related events and how these affect women and men in the three value chain of interest. Also, details were provided on actors in each node, their role, norms that affect them, and their economic resilience to climate change challenges. The workshop provided more insight into gender norms and associated constraints influencing men and women value chain actors across the three value chains in Nigeria. Key learning from the stakeholders across the three countries is that gender inequalities driven by norms that shape and reinforce discriminatory biases exist at different levels. Learning from the stakeholders' workshop will be integrated into the HER+ study, 'qualitative assessment of gender norms that constrain women's economic resilience to climate change challenges. The study will be carried out with women and men operating at different nodes of the cassava, catfish/fish, and chicken value chains in Nigeria and Tanzania. The study will use a combination of tools – Individual Interviews, Key Informants Interviews (KIIs) and Community-Level Focus Group Discussions (FGDs). Thus, key learning from the stakeholders' workshop will be incorporated and used to strengthen the tools.

## Acknowledgments

The stakeholder workshop in Nigeria was undertaken as part of the CGIAR Research [HER+ Initiative](#) on Harnessing Gender and Social Equality for Resilience in Agrifood Systems. HER+ is a CGIAR research initiative working to strengthen gender equality and social inclusion and build climate resilience across agrifood systems in the Global South.

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# 1. Introduction

The HER+ Initiative is a One CGIAR Initiative seeking to address the following four dimensions of gender inequality in agrifood systems:

- women’s lack of agency or limited ability to define and act on goals, make decisions that matter to them, and participate in the economy and public life;
- women’s lack of access to and control over resources;
- social norms that discriminate based on gender; and
- policies and governance that fail to include and benefit women.

HER+ uses impactful gender research to address the four dimensions of gender inequality by applying gender-transformative approaches to address harmful norms. It does this by bundling innovations for women’s empowerment, leveraging social protection to increase women’s access to and control over resources, and promoting inclusive governance and policies for increased resilience. The HER+ Initiative will generate learning and evidence on levers, and entry points to disrupt the foundations of inequality in agri-food systems (AFSs). It seeks to achieve this by working through 4 work packages as illustrated in figure 1.

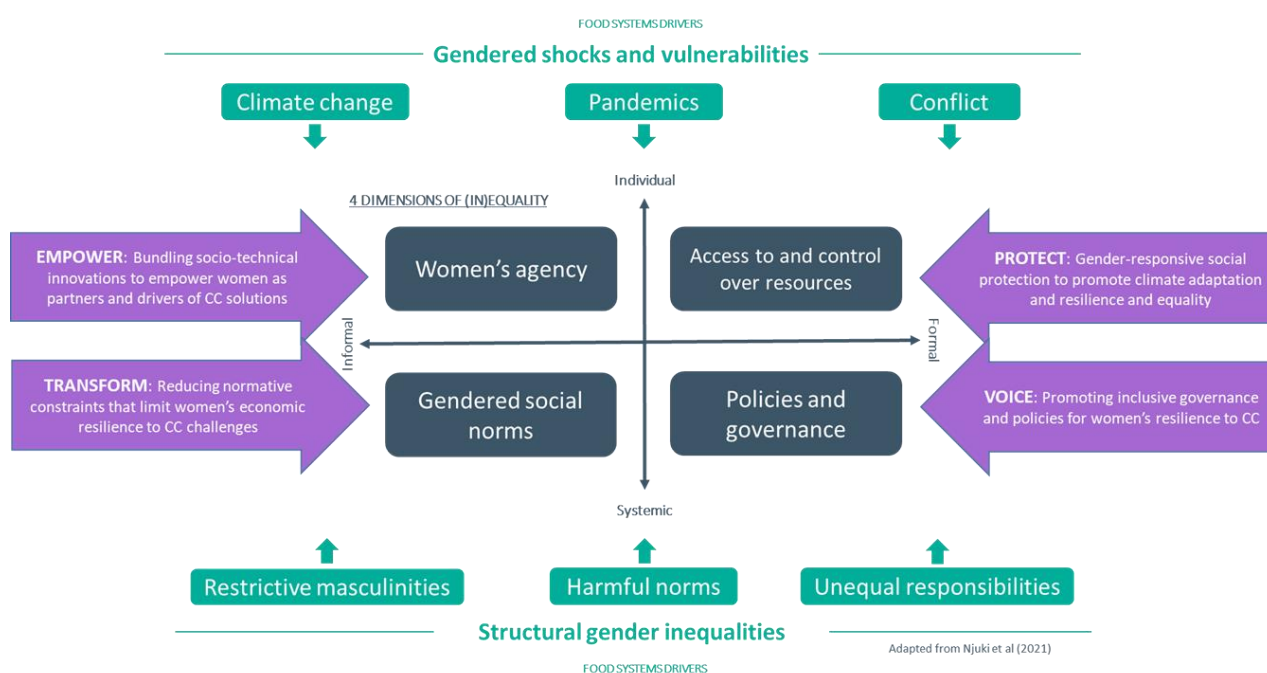


Figure 1: HER+ Initiative Work Packages - Source HER+ Proposal document

The stakeholders’ workshop was conducted as part of Work Package 1 TRANSFORM: Gender Transformative Approaches (GTAs) which seeks to reduce the normative constraints that limit women’s economic resilience to climate change (CC) challenges.

Specifically, the WP1 will seek to achieve the following:

- In the 2022–2024 cycle, WP1 will help AFS stakeholders identify leverage points and levers to reduce normative constraints that limit women’s capacities to build economic resilience to CC challenges.
- The One CGIAR and partners will use the evidence to design and implement GTAs with CGIAR Initiatives and partners to overcome these constraints.
- WP1 will help harness and package the learning to accelerate the widespread

application of GTAs within the AR4D ecosystem.

This report focuses on a workshop with stakeholders representing three value chains: cassava, catfish, and chicken.

## 1.1 Meeting Objectives

From the 10th to the 11th of November 2022, the HER+ Initiative hosted a stakeholders' workshop at the IITA office headquarters in Ibadan, Nigeria (See Annex 1 for workshop Agenda). The workshop had the following objectives.

- To identify and map the key stakeholders in the catfish, cassava and chicken value chains
- To understand which norms constrain women and other groups from participating in and benefiting from work in the different nodes of the value chain

Participants in the workshop were selected from national and regional stakeholders and experts with knowledge of the three value chains. Stakeholders included experts (e.g., University Faculty, NGO players, Government Departments), private sector actors, representatives of producer organizations and other value chain actors (see Annex 2 for the list of participants).

## 1.2 Expected outcomes

At the end of the workshop, the following outcomes were produced:

1. A workshop report;
2. A value chain map for each of the value chains;
3. Characterization of stakeholders that need to be further interviewed;
4. Improved data collection tools; and
5. Gender norms that need further exploration were identified for the different value chains.

Although the workshop was structured along three tools over two days, for coherence, the report is structured per value chain.



## 2. Workshop Structure

A participatory approach that engendered mutual interaction and learning was used as the overall guiding framework for the workshop. Netsayi Mudege, a Senior Social Scientist from WorldFish, Lusaka, Zambia introduced the workshop by welcoming the guests and presenting the workshop's purpose and the tools to be used during the workshop. The value chain actors were then split into three value chain groups to discuss the following tools:

1. Tool 1: Background information on climate change impacts on the Value Chain of interest
2. Tool 2: Mapping of value chains Adapted from Linda, Mayoux and Terrilon
3. Tool 3: Actor analysis Tool (Source: Vanderschaeghe and Lindo, 2003).

Below we describe the purpose of each tool.

### 2.1 Tool 1: Background information on climate change impacts on the value chain of interest

This tool elicited information about how the different value chains have been affected by critical events, including climate change-related events during the past 10 years. A key issue during the implementation of the tool was that key stakeholders for the three value chains stated that although they had experienced issues like flooding and droughts, they did not believe climate change was indeed affecting their value chains. They expressed that poor infrastructure development and other non-climate events had been more impactful.

### 2.2 Tool 2: Mapping of value chains

The tool<sup>1</sup> mapped value chain actors involved in the value chain from a gender perspective. The purpose was to map value chain actors for further engagement in interviews and Focus Group Discussions to understand the norms that prevent women value chain actors from becoming economically resilient to climate change impacts. The tool helped us to understand where women and men operate across and within the different nodes of the value chain and why. The focus is on the norms that enable/disable women and men from engaging and benefiting from their participation in the Value Chain of interest.

The tool used a gender lens to assess the environmental factors (physical, business, policy, and social) influencing women's participation in the selected value chains. For instance, if women are not present in specific nodes because they require high skill and are high-paying, and thus men dominate, then which norms (and power relations) create these outcomes? Answering these questions helped stakeholders to inform the 'norm statements' proposed for further exploration in interviews and Focus Group Discussions (FGDs).

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<sup>1</sup> The tool was adapted from Linda Mayoux and Terrilon tools on mapping of value chains

## **2.3 Tool 3: Actor analysis Tool**

The Actor analysis tool (adapted from Vanderschaeghe and Lindo, 2003) enabled us to profile the various chain supporters in the cassava, catfish, and chicken value chains.

## 3. Cassava Value Chain

This section presents the cassava value chain analysis findings from the three tools introduced in section 2.

### 3.1 Events that have affected the wellbeing and livelihoods of cassava value chain actors over the past ten years

Stakeholders listed the following negative impacts affecting women and men actors along the different nodes of the value chain:

#### 3.1.1. Producers

1. The inconsistent implementation of the government to substitute 20% of wheat flour with cassava flour affected millions of cassava farmers and processors. The policy would have assisted millions of farmers to make more money in cassava. Some processing factories were set up, and the government spent millions of cash. However, due to the appointment of a new minister, the policy is no longer being implemented. Stakeholders noted that farmers made huge losses because they produced more cassava expecting to benefit from the policy, which was eventually not implemented, causing a glut of cassava on the market and low prices.
2. The inconsistent market for cassava produce & products;
3. Delay in the disbursement of government credit/loan facilities to farmers;
4. Limited access to newly released climate-smart varieties and technologies such as drought-tolerant cassava varieties, green house for seed multiplication:
  - a. Farmers have responded to this lack of climate-smart varieties by seeking cassava stems from those that received these varieties. Both men and women can access improved varieties from beneficiaries informally. However, because of limited mobility, women often access these through their husbands or relatives. Stakeholders stated that it is difficult for women (especially married women) to cover long distances from one state to another to seek new cassava varieties due to restrictions on their movement.
5. Uncoordinated monitoring, evaluation and learning of activities;
6. Inadequate extension and advisory services;
7. Flash floods;
  - a. Cassava farmers have coped with flash floods by moving their cassava farms to another land that is not flooded. Both men and women are affected, but more women struggle to cope with this problem due to limited access to land.
8. Irregular rainfall, which is made worse by the dependence on rainfed agriculture;
  - a. Women are more affected because they have less access to climate-smart agriculture technologies like irrigation systems.
  - b. Cassava farmers also respond to climate-related threats such as floods and irregular rainfall by diversifying their enterprises. However, stakeholders noted that more women could diversify than men 'due to the ability of women to multitask and quickly perceive the danger ahead'. Another coping mechanism that processors use is to close factories and engage in other businesses. The stakeholders agreed that more women close factories than men.

### 3.1.2 Processors

1. Limited access to credit facilities mainly affects women more than men. The stakeholders confirmed that a married woman needs her husband's permission to get a loan from the bank. The wife needs to use her husband's assets as collateral. "A woman, most of the time can only access a loan through the husband .... A man will get a loan for planting of cassava. Once he gets it, he gives part of the loan amount to his wife. When a woman/wife gets the money, she will not use the money for planting cassava alone. She will diversify into other products, and she will payback her own loan faster than a man when a woman makes money, she gives the husband... Husbands know that a woman will make more money so they depend on them". Female stakeholders noted that women work hard but do not have equal access to credit since many of them do not have guarantors and collateral. In general, the stakeholders highlighted some of the issues that exacerbate the experience of men and women in the cassava value chain:
  - a. Stakeholders noted that producers could also get inputs on credit, but women fear taking such risks. It is primarily men who acquire inputs on credit.
  - b. Inconsistent government policies, particularly on the 20% substitution of wheat flour with cassava flour by private companies that bake bread. Many processors invested in processing machines anticipating increased demand for cassava flour, but the policy was not implemented. They suffered huge losses, and some processors shut down.
2. Poor maintenance of machines and equipment due to limited access to spare parts and qualified technicians.
3. Inconsistent supply of raw materials due to long distance in sourcing cassava roots and high transportation cost
4. Insecurity e.g., kidnapping. Participants mentioned that insecurity was affecting all farmers in the country. The insecurity made women afraid to move around, affecting their ability to participate and benefit from the cassava business. All participants in the cassava group agreed that although insecurity affects both men and women, women are more affected.
  - a. As a coping mechanism, in 2022, farmers formed and engaged local security agents (vigilantes) to provide security, although they felt that the problem of insecurity persists.

### 3.1.3 Traders

1. High energy costs leading to high transaction cost
2. Poor infrastructure, e.g., bad roads and inadequate storage facilities
3. Exploitation by middlepersons (mostly men) who buy cassava at meager unsustainable prices

### 3.1.4 Positive events

The stakeholders also highlighted the following positive events for women and men in the cassava value chain:

1. Interventions through project initiatives for example, TAAT, Harvestplus, CAVA, WEEDMN, BASICS, NextGen, which led to the introduction of new varieties of cassava, managed to link farmers to markets enabling them to upgrade to commercial farming and more women being cassava producers.
2. CAVA, and TAAT trained processors to use high-quality cassava farming (HQCF) in bread and confectionaries processing. Projects such as VCDP/IFAD also trained

- other primary processors on good processing practices and quality management systems (QMS)
3. Some stakeholders mentioned that there had been evidence of the transition from making traditional products such as gari and fufu to the production of commercial and industrial products such as starch, ethanol, and high-quality cassava peel. This has encouraged some farmers to move from subsistence production to commercial production of cassava because of readily available lucrative cassava markets provided by off-takers. It was suggested that although traditionally, women had dominated cassava processing, more women are also moving into cassava production.
  4. Nigeria fabricators are exporting cassava technologies (e.g. flash dryers) to other African countries like Tanzania, Malawi, Uganda etc.
  5. The emergence of young entrepreneurs in haulage/aggregation and other marketing businesses
  6. Deployment of ICT and improvements in the use of technology in cassava value chain activities.

### 3.2 Cassava value chain mapping

This section presents the outcome of the cassava value chain mapping exercise. It also provides insights into some of the constraints that women and men value chain actors experience in their participation at the different nodes of the value chain.

The following stakeholders were identified during the workshop: cassava grower association; politicians; traditional leaders; landowners; agro-dealers; village processing units; aggregators/bulkers; fabricators; government through agriculture development programmes (ADPs); research institutions like IITA, HarvestPlus; Universities such as the Federal University of Agriculture Abeokuta (FUNAAB), GOSEED and Information Communication and Technology (ICT) digital application developers. These stakeholders have contributed to enhancing the different activities under the cassava value chain such as developing improved cassava varieties, training processors on producing value-added cassava products, providing access to agro-chemicals and equipment, as well as undertaking research on new cassava varieties.

**Input providers:** Patriarchal norms are predominant in Nigeria; hence men, not women, inherit the land from their parents.

Similarly, men have more access to resources than women. For example, men have more access to inputs such as herbicides, pesticides etc. Herbicides are expensive so only farmers with money and access to credit can easily access them. Men can easily access credit because they have collateral, and even lending institutions prefer giving credit to a man over a married woman because they are not comfortable talking to married women in the absence of their husbands.

"Can you imagine you find your wife negotiating credit repayment with another man or has failed to pay back? What would you think of as a husband if it was you? The story would change from credit to something else...it will be like what are you doing with my wife"?

"Men love to deal with men when selling on credit. This is because when the time for payment comes, the issue can be misconstrued; the husband's brother or the

husband himself can accuse a man of having a sexual relationship or trying to embarrass someone's wife so the lender can even lose everything in such cases".

**Herbicides application** - It was also noted that men handle herbicides application because they are toxic chemicals if not handled properly. Women cannot manage to handle them, and it is preferred that they do not handle them to protect the children they care for. Because of these reasons, when it comes to offering credit or loans, men prefer dealing with other men rather than women.

**Land clearing** – Stakeholders suggested that because it requires much energy, men are responsible for clearing the land.

**Planting-** The stakeholders said that women are better at planting cassava because they follow good agronomic practices than men who tend to be impatient. For this reason, farmers usually engage women in planting cassava.

"cassava planting is a light job needing less energy, so women like it. They do better in this because they have patience. Women follow the recommended spacing for planting cassava. If you ask men to do it, they want to finish fast. They will heap/plant all the cassava stems in one place. As a result, farmers prefer that women plant cassava".

A female stakeholder explained that "men don't know how to plant cassava; it is a job for women".

**Sourcing for Cassava stems-** Men can travel at any time to source stem cuttings and do not need permission from anyone. Men need to monitor the cuttings of the stem to ensure they are properly cut (standard cutting). Men can easily frustrate a woman because most women are not assertive.

"Can you imagine a woman going to the farm in the bush in the middle of men? First, if she just tries to tell a man how she wants her stem to be cut before she even finishes talking, the man will look at her and ask, 'who are you to tell me how to cut stems? I have been cutting stems for 15 years, so what can you tell me? Where are you coming from; don't you have a husband?'"

It is also risky for a woman to go into the bush to get the stems (insecurity). A female stakeholder explained that:

"Women can't tell a man what they want, and I don't blame because it is a carryover from their homes. They are not expected to talk back at their husband, and in the absence of their husbands or male relatives, they are not expected to start talking to another man in the bush; you know cassava fields are in the bush".

**Pulverizing** - is a mechanized unit operated mainly by men because women are not allowed to use mechanized units due to societal expectations. It is believed to be a man's job to operate agricultural equipment. A female farmer at the stakeholders' workshop explains:

"Society expects that a woman cannot operate a machine because it looks complicated to operate .... But it is not even difficult. I have a pulverizer at home, but if I operate it myself, you will find that everyone who sees me will be surprised. Even my children will say, 'mummy, why are you doing that? That is a job for men. Because of this, I leave it for men to operate it",

**Sieving** – This is an easy activity which is usually done sitting. Men who perform this activity are considered lazy and viewed as “having nothing to do”. A female stakeholder explained that sieving was easy such that even a 10-year-old could manage it. The activity was considered like a kitchen activity for women.

**Roasting**- Because roasting is a food preparation activity, it is considered as a women role. Men are also known to be impatient; hence, women are more effective in roasting. If you give men to do it, they might burn the cassava because the roasting method requires patience, which men lack. "It requires sitting in a particular position for a long time and adjusting the firewood".

**Transportation**- Offloading and loading require a lot of energy; hence men are usually involved in transportation. Men can also handle transport challenges and travel long distances, unlike women. Men can handle transportation challenges such as the police in checkpoints, tyre punctures, and travelling from one state to another better than women.

**Marketing**- Marketing depends on the scale of production and location. In southeast Nigeria, more men are involved in the marketing of cassava. Large-scale farmers sell at the farm gate in a formalized market, which men dominate. Most women sell in the local market and at the doorstep. More men explore regional markets because they can easily travel and make large supplies demanded in formal markets. Women only explore local markets. Roles also depend on the kind of cassava products being marketed. In the southeast of Nigeria, men sell gari (cassava flakes), starch and akpu (cassava paste); in the southwest, women sell lafun (cassava flour), fufu (cassava paste) and gari in local markets (selling in small units/quantities).

**Washing Cassava** - This activity involves fetching water, considered a women's activity. "I have never seen a man washing cassava, if a man is found washing cassava, that is not a man, you won't even find one anyway?". It is considered an activity that needs less energy, is light, and women can do it.

**Peeling and soaking**- This was regarded as a women's activity since women are faster at using knives and doing hands-on activities.



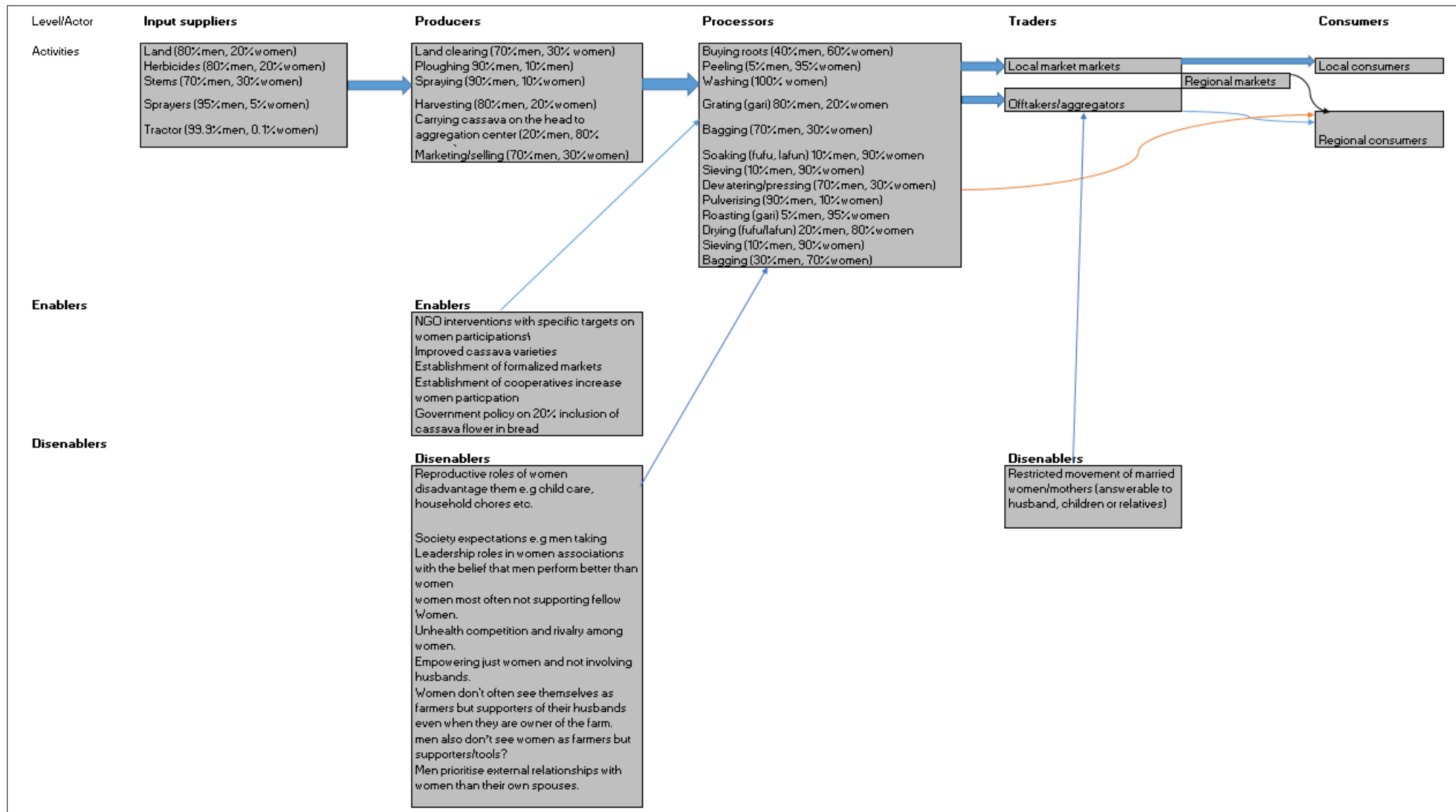


Figure 2: Cassava Value Chain map

### 3.2.1 Gender constraints affecting women in the cassava value chain

Despite the improvements witnessed in the value chain, there are some gender constraints which negatively affect women and other groups from fully participating in and benefiting from work in the different nodes of the value chain.

**Inadequate access to resources:** The cassava value chain stakeholders explained that because men own and have access to the land, they can realize the benefits of the cassava value chain more than women. These include benefits from commercial inputs such as access to herbicides, land, and farm and in some cases, using them as collateral.

**Restriction from participation in leadership:** Both men and women in society believe that men should take up top leadership positions, such as the chairpersonship of the women's producers' associations. The society expects men to take up top leadership positions even in cooperatives dominated by women. It is generally believed that men can perform better in leadership than women,

"You will find that a women's group is led by a man and if you check the membership, you will find that men are just 4 and the rest, 50, or 100 are women".

**Unhealthy competition and rivalry among women:** Women do not believe that another woman or a fellow woman can be a 'role model' or provide leadership. Hence, they do not support each other. For example, if a woman in leadership stands in front of the audience to address fellow women, they may demean her and ask themselves, "what is she going to tell us now"?

**Insecurity and envy from the husband:** When the woman is empowered, the husband may feel jealous and insecure and plot to bring the woman down. "In one project, we empowered this woman with cassava processing equipment. She started making more money than her husband. The husband started asking the woman to give him all the money she made. Later the husband started working with other men in the community to frustrate the woman until her business went down". Another participant added, "You can't just empower a woman and leave the husband, if you do that you will be putting pressure on the woman. The man can even start refusing to support his children. He will be directing them to their mother whenever they want something because she has more money now". As a result of this jealousy and insecurity, it was suggested that men do not support their wives to prosper but can easily support other women.

**Non-consideration of women as farmers:** Women do not often see themselves as farmers but as supporters of their husbands, even when they own the farm. Society expects the husband to own the farm and oversee the household, including the farm produce. "Besides, women cannot sell their produce without the consent of their husbands because men are in charge of the household and women are helpers. They are helpers, so they must consult their husbands on whatever they do. Even society expect them to behave that way". Men also do not see women as farmers but as supporters or tools.

**Burden of care:** Reproductive roles such as childcare and household chores disadvantage women. Married women cannot freely move as they are answerable to their husbands, children, or relatives.

Table 1: Key norms identified for the cassava value chain

Norms	
1	Women should not engage in the supply of inputs such as improved cassava varieties (cuttings), fertilizers and herbicides
2	Women should not go alone to buy stem cuttings
3	A woman cannot get credit/loan for cassava farming without the approval of the husband
4	Women cannot mobilize paid labour to work on the cassava farm or to process cassava without consultation of the husband
5	Women should not own land for cassava production
6	Women should not determine when to harvest fresh cassava roots for sale
7	Women should not own small or medium-sized cassava processing centers as a main source of income
8	A man will be considered less of a man if he is involved in cassava peeling, washing, sieving, and toasting.
9	A woman should not operate mechanized tools for pulverizing cassava
10	Women should not be the ones who travel when transporting fresh or processed cassava for sale outside their place of residence
11	Women should not spend long periods outside their homes engaging in the sale/trade of fresh or processed cassava
12	Women cassava farmers should not engage in negotiating prices with traders who come from outside their place of residence
13	A woman should not be a chairperson/leader of a cassava association or cooperative

### 3.3 Cassava Value Chain Actor Analysis

This section summarises results from the actor analysis tool to provide details of who the cassava value chain supporters are and the support they offer to the cassava value chain actors.

#### 3.3.1 What support do cassava value chain supporters offer to the value chain actors?

##### Value Chain Supporters and support provided to Value Chain Actors

Chain supporters at the production node include:

- Traditional leaders, individual landowners, associations/cooperatives, e.g. cassava grower association;
- Private & government/public extension agents, agro-allied shops, politicians;
- Academia and research institutions (e.g., IITA, FUNAAB, GOSEED), extension agents, politicians, ICT App developers;
- Project-based institutions/NGOs, extension agents, research institutions; and
- Government through Agriculture Development Programs (ADPs)

Chain supporters at the processing node include:

- Village processing units

- Associations
- Politicians
- Business owners
- Aggregators/bulkers
- Knife sellers
- Fabricators
- Service providers
- Sack sellers
- Bowl sellers
- Water suppliers
- Labourers
- Local sieve sellers; and
- Firewood sellers, gas sellers.

1. **Cassava cooperatives/associations.** These provide informal borrowing and loans to farmers. They help farmers to acquire land as a cooperative and provide social support if a member has a problem, such as a funeral. Associations also provide a strong voice for farmers to demand services from formal institutions such as the government and NGOs.
2. **Government;** federal/state ministry of agriculture provides subsidies for herbicides, stem cuttings, fertilizers, and agriculture equipment like tractors. They also offer extension services.
3. **Private/Civil Society extension service providers** like Catholic Relief Services (CRS), Justice Development Peace Movement (JDPM). These provide extension services; distribute stem cuttings for improved varieties; train farmers; mobilize the formation of cooperatives, and link farmers to off-takers.

### 3.3.2 What climate-smart or other technologies approaches are available for adoption by the different cassava value chain actors to improve performance?

1. Improved seed varieties, e.g. 419 baba-70 have been adopted by both men and women.
2. Screen houses for seed multiplication. 90% of the users of this technology are men because it is capital-intensive.
3. Solar dryers for drying cassava roots into chips and slurry into flour. Cooperatives own these technologies.
4. ICT applications for fast information. Youths are the majority of users of this technology; 80%men and 20%women. The technologies include seed tracker, yam disease diagnosis app, and weather forecast app-AKILIMO
5. Good agronomic practices (GAPs) and six steps in weed management. More men than women have adopted this technology.

### 3.3.3 Cassava technologies that have been disadopted and why?

In 2004 women processors were introduced to **stainless steel gari roaster**, but they abandoned it and continued using an indigenous galvanized fryer. One stakeholder stated that women stopped using this technology because they believed it was unhealthy and introduced contaminants such as heavy metals. However, the opposite is true. IITA went

back to sensitize processors about the benefits of using a stainless steel pan, and some returned to using the pan again.

**Cassava peeler.** Women abandoned this technology because men operated the machine/peeler. The peeler took away the job of washing and peeling cassava from women, so women didn't like this. Women used the money they earned from peeling to buy soap and meet other household needs. "You know machines are usually operated by men, so you won't find a woman operating a machine". "Apart from that the peeler was also not peeling well compared to manual peeling".

Men adopted **power tiller** introduced by IITA in 2004/2005 for land preparation. Men later abandoned this technology because they were imported and not easy to maintain. This was due to lack of spare parts and technicians to repair whenever it developed fault.

Table 2: Actor analysis – Cassava value chain

Typology of value chain supporter	Socio-economic characteristics of the category	What services are provided by the value chain supporter (these include climate-related services)	What actors does the chain supporter support	How does the value chain supporter support women value chain actors and promote their resilience to climate change impacts (Can specify per node)	How does the value chain supporter support men value chain actors (Can specify per node) to promote their economic resilience to climate change impacts	If the type of support differs for men and women actors, please highlight the differences. How do these differences impact men's and women's economic resilience to climate change impacts
Private extension service providers such as NGOs, including Research institutions	Research on CSA CIS and extension services	linking cassava processors and traders to formalized markets; drought resistance seed varieties; digital applications such as seed tracker and disease diagnostic app. Extension services provide knowledge dissemination, such as sensitizing processors on the effects of processing technologies that introduce heavy metals in food.	Producers, processors, traders, and consumers	Links women to formalized markets to create a sustainable market and eliminate middlemen. Encourage women to form cooperatives for easier access to services such as training on improved seed varieties and for easier distribution of drought-tolerant cassava varieties.	There are no differences between women and men	There are no differences between women and men
Government federal/state ministry of agriculture	agriculture and extension services, including policy and markets	provides subsidies for herbicides, creates formal regional and local markets; extension services; road network	producers, processors, transporters; traders and consumers	The government provides policies	Policies are neutral	Policies are neutral
Cassava cooperatives/associations	Network, and social support such funeral, land acquisition,	Network, and social support such funeral, land acquisition, informal source of credit etc.	producers, processors, and traders			

Typology of value chain supporter	Socio-economic characteristics of the category	What services are provided by the value chain supporter (these include climate-related services)	What actors does the chain supporter support	How does the value chain supporter support women value chain actors and promote their resilience to climate change impacts (Can specify per node)	How does the value chain supporter support men value chain actors (Can specify per node) to promote their economic resilience to climate change impacts	If the type of support differs for men and women actors, please highlight the differences. How do these differences impact men's and women's economic resilience to climate change impacts
	informal source of credit etc.					



## 4. Catfish Value Chain

This section presents the catfish value chain analysis findings from the three tools introduced in section 2.

### 4.1. Events that have affected the wellbeing and livelihoods of catfish value chain actors over the past ten years

Stakeholders listed the following negative impacts that events from the past ten years have had on the catfish value chain:

1. **Covid-19 pandemic** has a negative impact on all the value chain nodes due to restricted movement. In Nigeria, the infection rate of COVID was low, but the restrictions had a high negative impact. The actors coped with the effects of COVID-19 by adopting different innovative methods.
  - a. Use of non-conventional feeds to lower the cost of production, e.g., use of maggots. Male farmers are more in production and have more time to make alternative feed than female farmers. In addition, some producers reduced the frequency of feeding the fish, thereby reducing the size and quality of catfish.
  - b. Some producers reduced stocking densities to keep stock they could manage when the prices went up.
  - c. Producers and traders sold fish at meager prices to avoid huge losses if they stayed with products for a long time. This affected both men and women because men are more in production and women in trading.
  - d. Women are more in catfish processing and trading than production. Therefore, coping strategies used in processing and trading are used more by women.
    - Some producers, traders and processors shut down their businesses altogether. Since women focus more on catfish processing, more women were affected. They either completely shut down or decided to reduce processing activities.
    - Many women processors started buying fish on credit—also some sold fish on credit to their customers.
    - Some producers and processors introduced home-delivery of products as a marketing strategy.
2. **Exchange rate fluctuations** have affected fish feed prices. Prices increased astronomically, affecting producers and hatchery operators. This had ripple effects on other actors as the increased price is passed down to buyers and consumers.
3. **Adulteration of feed**-by-feed suppliers resulting in low yields and losses. Some feed sellers mixed the feed with sawdust. One of the high-quality fish feeds in Nigeria was adulterated by traders. The feed alteration hugely affected producers resulting in losses for catfish farmers. The adulteration of feed was mentioned as an event and a response to the high feed prices.
4. Some consignments of feed contained dangerous metals affecting fish health. **Contamination of feed** during importation, for example, contamination with heavy metals in the feed ingredients. This contamination not only impacted the hatcheries and producers but also the whole value chain.
  - a. To cope with 2, 3 and 4, some fish farmers adopted non-conventional feeds such as feeding the fish with maggots. It was noted, however, that 'A man usually has more guts to make non-conventional feed e.g. using maggots for feed, than a woman.'

- b. To respond to 3 and 4, farmers flagged the contaminated and adulterated feed to the authorities and stopped using some commercial feed brands because of that.
5. **Floods** affected the producers and all the value chain actors. The floods destroyed fishponds, the source of raw material, and market access was affected. The entire value chain is affected when flooding happens. Stakeholders noted that the worst flooding event was in 2011/2012. To cope with flooding, some fish farmers relied on weather forecasts to make decisions about their fish farms. Others constructed or raised their pond dyke. The government and the World Bank also funded a program to clear waterways to reduce the impact of flooding by allowing proper drainage. Stakeholders noted that the above coping strategies mainly benefited producers, most of whom are men. However, the effects of the floods had a ripple effect on the processors and traders. Households are also affected by floods which makes it hard to engage in productive work. Some households received flood relief from the government.
6. **Droughts** affected the producers but had ripple effects on the whole value chain. Stakeholders noted that before 2015, there used to be much rainfall, but now, by June or July, the quantity of water has reduced drastically. Farmers can no longer rely on rainfed agriculture. In response to the effect of drought or dry spells, fish farmers now:
  - a. Delay stocking;
  - b. Change the stocking patterns by stocking bigger fish/ Juvenile fish to withstand the short rain periods. "You stock grown fish to have a short cycle";
  - c. Use concrete tanks instead of earthen ponds to avoid ponds' water seepage/leakage. However, stakeholders stated that eight of 10 women could not construct these ponds because of the heavy labor and high financial investment; and
  - d. Dig boreholes and aquifers.

It was noted that generally, men are easily able to cope with droughts due to their physical strength to construct the dykes, and concrete tanks and because they have the financial resources. However, some people and stakeholders believe climate change is a scam and do not associate floods with climate change. A participant stated, "Climate change may not be the main cause. The misuse of drugs has resulted in resistant diseases. For fish, our main issue is inbreeding that can cause catfish diseases to increase rather than the impacts of climate change".

Stakeholders listed the following positive impacts:

1. **Better awareness, research and development** led to improved technologies and innovations such as water parameter testing and alternative fish feed. These technologies are beneficial to feed producers, hatcheries, and producers.
2. **Increased social media connection and digital marketing** opportunities are helpful to all value chain actors, especially processors and traders.
3. **Cold-room - development programmes by the government** have improved the adoption of processing technology.
4. **The government's backward integration policy** encourages investors to invest domestically in aquaculture instead of importing feed and frozen fish through high import duties. However, the local value chain actors are not benefitting from this advantage due to the poor regulatory environment.
5. There is an **ongoing policy discussion** to sign the law to regulate the prices of fish and feed to protect farmers from losses. The Nigerian fish association is leading the policy initiative. If successful, it will protect small-scale fish farmers and consumers.

## 4.2 Catfish Value Chain Mapping

This section presents the outcome of the catfish value chain mapping exercise. It also provides insights into some of the constraints that women and men value chain actors experience in their participation at the different nodes of the value chain.

The value chain actors in the catfish value chain include input suppliers (hatchery operators, Feed millers), producers (small-scale farmers, large-scale farmers), fish traders (supermarkets, eateries/fast food joints, open market traders), processors (smoking, fish sausage, cold room operators [who can be states, individuals and cooperatives] and consumers (pepper soup joints, restaurants, households and schools). The stakeholders also identified chain supporters. These include aquaculture farmer associations, extension services, transporters, ice sellers, technicians and artisans, researchers, veterinary/lab services providers, finance providers and information services providers. The gender roles of the different actors are described below.

**Input supply:** Regarding input supply, women are usually the ones operating shops and farms, but they do not own the farms or businesses. It was noted that women often say their husbands own the businesses or the farms. "Women have no problem with that ... as long as there is trust and money is used as planned. In many cases, the money will be the issue". It was noted that cold rooms to maintain the cold chain are mainly owned by cooperatives and the state. Men usually own those owned by individuals due to the huge capital investment needed.

**Grow-out fish producers –** The majority of producers are male. There are few women in small-scale production, but in large-scale production, there are even fewer women. Commercial fisheries also mainly employ men. The private sector employs very few women.

**Processors -** Processors are mainly women. Most processors use smoking kilns, charcoal, electric smokers, and dryers for catfish. There is one industrial processor also producing fish sausages and other products who is a man. Men dominate industrial processing because the level of investment needed is huge, and the skills and resources needed are immense.

**Traders -** Most fish are sold through open markets, and most traders are women. For small-scale traders, husbands may get fish from farms and hand over the fish to their wives to sell.

### 4.2.1 Gender roles

Women are not major participants in some nodes and activities like production, and input supply because of:

- Lack of access to land;
- Lack of access to finance and resources;
- Low education level;
- Decision-making processes – The man is the one who presides over decisions due to culture. 'In some cultures, a woman cannot speak when a man is speaking'.
- Low levels of women's empowerment; and
- Burden of household chores which limits their full participation in economic activities.

- **Why women are the majority in some nodes like trade and processing (enablers).** In restaurants and eateries joints, women cook because they have learnt since they were young how to cook. Having a prior skill enables them to start local food joints. However, professional chefs would probably be men because they have undergone training. Women operate local eateries.
- Men patronize pepper soup joints, mainly going there at night and in the evenings after work, as they also consume beer and meet up with friends. Women do not go to the pepper soup joints because they are generally busy in their houses taking care of the household chores.
- According to the stakeholders, vending requires one to talk and negotiate, and women are much better at that than men. The women are the ones who are involved in small-scale trading because men find vending hard. Men are the ones who go to the farms to buy fish and bring it to their wives to sell because of the perceived security risks that women may face if they go to the farms to buy fish. However, in some states like Benue, women do everything, even canoeing, buying, and selling fish.



Figure 3: Catfish value chain map



#### 4.2.2 Gender disenabling factors/norms

- Some of the value chain activities require commitment. For example, sometimes, the hatchery requires one to sleep on the farm some hatchery activities are very sensitive and need continuous monitoring someone to monitor them all the time. Sleeping at the farm is unsafe for the woman and prevents her from taking care of household chores. Unless the woman is single, it is inappropriate for her to leave her house to sleep in the hatchery.
- Socio-culturally, it is the man who engages in economic activities. It is perceived that naturally, men take up actions and make decisions on economic activities around the catfish value chain. However, the stakeholders added that some men do not regard women working and earning their own money as a threat or challenge as long as they are involved and are aware of what the woman is doing.
- Religious and cultural influence. Stakeholders suggest that Muslim men prefer to have women stay at home and not engage in the fish value chain or other economic activities.
- Women cannot access capital because of low education and lack of collateral like land. In some cooperatives, if a woman needs to take a loan, the husband must endorse the application.
- Women can own land. Women can have access to land; however, due to cultural issues, it will be a problem for a woman to buy land without the husband's knowledge. Doing so will cause strife in the family when discovered. The land is regarded as a man's possession, and he has to buy it. For the sake of peace, the wife needs to get permission from the husband to buy it. "Sometimes the two spouses agree to purchase land together, and the land title is written Mr. and Mrs. (man's name). This is problematic. The woman needs to insist that they include her full name because Mrs can be anyone."

#### Enablers

The stakeholders also identified certain factors that can enhance women's participation in the catfish value chain.

- Financial packages and services for women and having financial products that are attractive to women
- Training and extension services to expand opportunities, including having more female extension service providers. Deliberate efforts should be made to include women in training, seminars, and advocacy.
- Access to and capacity building on new technologies; "We have market linkage platforms, apps and information service providers but without knowledge on how to use these tools women will not be empowered".
- Networking in cooperatives to share challenges and learn from each other. For example, the business forum for cooperatives provides opportunity for female role models to interact with female entrepreneurs.
- Fish farming provides an opportunity to improve household food security and nutrition.
- Opportunities for export markets and gaining foreign exchange
- Opportunities to mitigate climate change effects should be expanded to actors in the catfish value chain especially women.
  - Floods - Government interventions to build infrastructure and clear the waterways so as to reduce floods
  - Upgrading weather forecasting digital tools

- Policy enforcement on encroachment on the waterways, such as people building near the banks of rivers or lakes
- Increased awareness and sensitization to stop dumping of refuse and waste.
- Water-recycling opportunities and collection to avoid blockage
- Drought - Water drilling and harvesting, borehole drillers
- Construction of Dams and reservoirs to be useful
- There is a need to have a short gestation period for fish and to change the mode of production to have a short production cycle.
- Use of tank systems and facilities. Use of other alternative facilities to be able to grow fish besides the ponds
- Changes in production patterns will reduce pest and disease attacks.
- Women need to use weather technologies and climate forecasting tools. The weather pattern then was easy to predict, but now the prediction could be more accurate, for example, through using digital apps. However, the utilization of these climate and weather forecast apps could be targeted more at women.

Table 3: Key norms identified for the catfish value chain

Norms	
1	Women should not engage operate catfish hatcheries?
2	Women should leave catfish farming to the men, especially if there is an able man in the household to do it.
3	A man will be considered less of a man if his wife is involved in fish farming.
4	Women should not own fishponds.
5	A woman cannot go to the hatcheries to buy fingerlings for catfish production
6	Women should primarily be the ones who clean and process fish
7	A woman cannot go to fish farms to buy catfish for sale or processing
8	Men should be responsible for marketing fish, not women
9	Women should not be the ones to transport the inputs (for production) and catfish for sale outside their place of residence
10	Men should primarily be the ones who control the earnings obtained from the sale of fish.
11	A woman cannot get credit/loan for fish farming without the approval of the husband
12	A woman cannot own a pepper soup joint
13	A woman should not be a chairperson/leader catfish association or cooperative

#### 4.2.3 What climate-smart or other technologies approaches are available for adoption by the different catfish value chain actors to improve performance?

Climate-smart technologies and approaches available for adoption by the value chain actors for improved performance

- Water heaters that are heating the water directly to the ponds to have a stable temperature and to regulate temperature



- UV filters to remove the growth of microbes
- Tanks and concrete facilities
- Sealed houses and greenhouses
- Restoration of water treatment plants
- Water parameter equipment
- Bio-monitoring crops

However, more male value chain actors are adopting climate-resilient technologies than women. Women may need more skills and capital to adopt these technologies. Some of the technologies are expensive and beyond the reach of most smallholders and small businesses.

### **4.3 Catfish Value Chain Actor Analysis**

This section summarises results from the actor analysis tool to provide details of who the cassava value chain supporters are and the support they offer to the cassava value chain actors.

Table 4: Catfish Value Chain Actor Analysis

Typology of value chain supporter	Socio-economic characteristics of the category	What services are provided by the value chain supporter (these include climate-related services)	What actors does the chain supporter support	How does the value chain supporter support women value chain actors and promote their resilience to climate change impacts (Can specify per node)	How does the value chain supporter support men value chain actors (Can specify per node) to promote their economic resilience to climate change impacts	If the type of support differs for men and women actors, please highlight the differences. How do these differences impact men's and women's economic resilience to climate change impacts
<b>Extension officers</b>	Mainly male. In some regions, female extension officers are not allowed. Extension services are primarily provided by the government.	Offering extension services, including promoting climate-resilient technologies	Particularly input suppliers and	Offering extension services on good management practices and climate-resilient technologies.	Same as women	No differences, but most registered farmers are males, and the males are the ones who mainly attend training. Female extension officers are also few.
<b>Financial providers</b>	Cooperatives, banks, insurance	Lending, savings, insurance	ALL except consumers	Producers, traders, process access savings, loan and insurance facilities on climate-resilient technologies like greenhouses, water parameters	Same	The type of product is the same for males and females. Women value chain actors do not access financial products as men do mainly because of low empowerment and access among women.

Typology of value chain supporter	Socio-economic characteristics of the category	What services are provided by the value chain supporter (these include climate-related services)	What actors does the chain supporter support	How does the value chain supporter support women value chain actors and promote their resilience to climate change impacts (Can specify per node)	How does the value chain supporter support men value chain actors (Can specify per node) to promote their economic resilience to climate change impacts	If the type of support differs for men and women actors, please highlight the differences. How do these differences impact men's and women's economic resilience to climate change impacts
<b>Transporters</b>	They are mainly men and very few women, if at all. Women may own the trucks, but they don't drive. They use trucks, motorbikes, bicycles	Transportation and logistics	ALL	Motorbikes can access some areas that trucks cannot as a result of road erosion and terrible roads due to heavy rains. The transporters move raw materials and fish from one node of the value chain, including deliveries from consumers	Same	Ease delivery and accessibility to products for men and women. Transportation helps both men and women, but women benefit more because of their low mobility levels and since they rarely cycle or drive motorbikes
<b>Ice sellers</b>	Both male and female. Some have shops to make ice blocks and supply	Supply ice	Mainly support fish traders	Because of high temperatures they maintain quality because fish is perishable	Same	But women are mostly traders, so they benefit more than men
<b>Research</b>	Mainly research institutions and academia	Offer research services	Mainly hatcheries, producers and processors, feed millers. Consumers on nutrition Traders in developing	Coming up with climate-resilient technologies, adaptation of coping strategies	Same	They support both but men might have higher access to research dissemination material.

Typology of value chain supporter	Socio-economic characteristics of the category	What services are provided by the value chain supporter (these include climate-related services)	What actors does the chain supporter support	How does the value chain supporter support women value chain actors and promote their resilience to climate change impacts (Can specify per node)	How does the value chain supporter support men value chain actors (Can specify per node) to promote their economic resilience to climate change impacts	If the type of support differs for men and women actors, please highlight the differences. How do these differences impact men's and women's economic resilience to climate change impacts
			marketing strategies			
<b>Vet/lab services</b>	Mostly private owned but we have some government owned	Laboratory testing Fish health Disease screening	Hatchery production, production of fish and feed millers	Disease screening in the face of climate change for producers Water analysis and guides for producers and hatchery operators Fish and feed millers concerning additives and premixes	Same	They provide services to all but depend on the financial ability of farmers to access the services. Women have low financial resources.
<b>Information and market linkage providers</b>	Mostly privately owned, some managed by NGOs. We have digital applications too.	Offer market linkage programmes and production information, and climate information	ALL	Producers, Consumers and traders get price information. Traders get market linkages. Producers get market and climate information.	Same	The services target all. However, the knowledge and skills to use the applications may be low among women.

## 5. Chicken Value Chain

This section presents the cassava value chain analysis findings from the three tools introduced in section 2.

### 5.1 Events that have affected the well-being and livelihoods of chicken value chain actors over the past ten years

The stakeholders identified the events that affected the well-being and livelihoods of chicken value chain actors over the past ten years and the coping mechanisms employed by the actors.

**Changes in government policies-** Government policy inconsistency has one of the most damaging impacts on the chicken value chain activities in Nigeria. The ban on importation of dressed chicken and chicken products by the Obasanjo administration encouraged local production empowering local chicken value chain actors and improving livelihoods. More women are engaged in the broiler chicken value chain than men, and the opposite is true for layers. More men than women are engaged in layers because of the high capital investment needed. However, an opposite impact of the import ban is that upon realizing that the market was now lucrative, many locals joined the chicken value chain saturating the producer markets and leading to low chicken prices.

"I had a contract to supply chickens during the Christmas season. I used to make lucrative profits this time. But in 2008 we were so many of us that I incurred severe losses. That was the last time I went into the Christmas chicken production."

Eventually, some people who could not compete made losses dropped out of business or reduced production capacity and selling prices. Men and women used the same coping strategies. However, stakeholders noted that at the processing level, women were more affected. The market was flooded. There are more women at the processing, marketing and storage nodes since these nodes are less capital-intensive. Men resorted to smuggling chickens and products into the country since those were much cheaper than locally produced ones. According to the stakeholders, more men were engaged in smuggling because smuggling is risky. Women fear being arrested and jailed because there would be no one to care for their children.

During the same year, 1999, the government also banned importing day-old chicks and fertilized eggs. This ban led to an increase in locals engaging in the hatchery business. The market became flooded, and the price of day-old chick went down. To cope, chicken hatchery operators reduced production or opted out of business. However, more women dropped out of the hatchery business than men. However, it was noted that

"there are actually fewer women in hatchery business than men. This is because hatchery requires one to be full time and spending nights in the hatchery; a role that most especially married women would be allowed by their husbands."

**Political/state insecurity such as kidnapping for ransom-** Stakeholders noted that the kidnapping of chicken farmers has become rampant. Chicken farmer groups and

association members are often engaged in fundraising for members of associations who have been kidnapped.

"On average, there is a call every month to rescue a member of our poultry association who has been kidnapped. We have to scout for funds from association members to help bail out such a farmer," echoed one leader of the Poultry Association.

Another stakeholder, a chicken farmer, stated that he had not visited his poultry farm for six months due to fear of being kidnapped. Some stakeholders stated that women are more resilient in coping with kidnapping than men.

"I can give you an example of my case. My wife and children will stop me from moving around and beg me to stay home; yet my wife will go out. Women trust themselves to keep safe than their husbands", cited one chicken farmer.

**Flooding** - Affects the production of crops such as maize, soya bean, and sunflower, which are key raw materials in chicken feeds production. Thus, floods will lead to high feed costs and, ultimately, to high production costs. Flooding also increases the risks of chicken diseases, requiring more medications and other bio-security measures. Chicken houses may get flooded, which will require relocation of the chickens or raising of their houses.

To cope with the effects of increased feed prices and increased costs related to the purchase of medicines, chicken farmers usually increase the selling price of their chickens. It was noted that men are better able to cope with the effects of flooding than women. Men can cope better than women because they have more access to finance, including loans, than women. Men also own land and other assets that can help them easily relocate their chickens or raise the chicken's houses if needed. It was noted that men more than women might compromise production strategies to reduce the cost of production. These strategies may include adulterating inputs such as feed ingredients; vaccines and others may use growth hormones or pig feed if it is cheaper than chicken feed.

**Arbitrary and multiple taxes and levies** – stakeholders noted that arbitrary taxes and levies make it hard to plan. As a coping mechanism, both men and women chicken-value-chain-actors state that they avoid paying the taxes and levies by manipulating documents to pay less, not paying at all or bribing someone in the tax office.

"to be honest, on this one most of us simply dodge the taxes and either not pay or manipulate documents so we pay less. Others just bribe the tax officers," revealed one stakeholder.

The coping mechanisms are the same for men and women. Another strategy is to enter into litigation with relevant authorities to challenge the situation either individually or through their associations.

**COVID-19** - There was restricted movement, people got sick, and others died. As a result of the impacts of COVID, production drastically reduced since farmers didn't visit the farms regularly because of the restriction or illness. There was reduced labor as helpers stayed at home. The quality of chickens was reduced since there was no direct supervision on farm. Workers were supervised by phone. The rate of theft and pilferage increased and the number of buyers reduced leading to reduction in business.

Regarding coping, it was noted that men were quicker than women to opt out of production. Both men and women reduced production capacity. For traders, business reduced drastically, leading to reduced profits and some businesses closing. Many opted out of business, especially men, while more women than men opted to deliver the products directly to their client's homes. Men are primarily engaged in the transportation node.

"actually, there are almost no women in the transportation node. The number of women is very insignificant".

Many transporters shattered their businesses, and others closed forever since it was not economical anymore to engage in the transportation of chicken and chicken products due to the reduction of production and lack of markets.

However, there was also a debate where others felt that there was no change in climate and that the problems, they were experiencing in chicken farming were not related to climate change's impacts. For example, some stakeholders stated that flooding problems might be caused by poor infrastructure, not climate change.

### **Coping with climate change impacts**

Stakeholders noted that except in processing, marketing, and sales, men are generally more resilient than women. Cultural and social norms influence economic resilience. Men are the primary decision-makers at the household level and dictate what women can and cannot do. Men also have more access to finances than women such that in case of a setback, it is easier for them to return or pump more capital into business than their women counterparts.

## **5.2 Chicken value chain mapping**

This section presents the outcome of the chicken value chain mapping exercise. It also provides insights into some of the constraints that women and men value chain actors experience in their participation at the different nodes of the value chain.

### **Who are the important chain support actors?**

The stakeholders identified the following support actors in the chicken value chain:

- Security agencies
- Insurance
- Banks
- Microfinance/village saving groups
- Cooperatives and associations
- Government
- NGOs/CSOs
- Researchers/academia
- Extension agents
- Structural engineers
- Artisans





Figure 4: Chicken Value Chain Map

### 5.2.1 Opportunities and constraints for women

The stakeholders explained that women are concentrated more in some nodes of the value chains than others because of the following reasons:

1. **Cultural reasons:** It was noted that due to their feminine nature, women keep away from strenuous and time-demanding tasks. Also, they do not have much time on their hands since they are involved in reproductive roles such as pregnancy, childcare and taking care of the family in general. As a result of the time demands, you may not find women in hatchery operations, transportation, and chicken production. In male-headed households, men make the final decisions and have access to more resources than women. Hence, they will dominate capital-intensive nodes such as the input, production, and transportation nodes. When asked why men had more resources than women, a stakeholder responded:  
"Because culture favors the boy child as they take it the girl will get married and be taken care of by the husband. ... They will even prefer to educate a boy than a girl. They take women to be only for childbearing and family care."
2. **Religious reasons** – Some stakeholders stated that some religious doctrines do not approve of a woman mingling a lot with men other than her husband and close family members. This restriction keeps women at nodes that will not require much interaction with men, such as processing and trading. Women are not allowed to mingle because it is believed that they are their husbands' property, need their husbands' protection, and they alone can dictate what women can and cannot do.
3. **Social norms** - Societal expectations, for instance, due to the society dress code for women not to wear trousers/pants in some societies, a woman cannot engage in activities that would require her to climb high (like climbing lorries). Hence, women will not participate in the transportation node as transporters. "A woman is labelled deviant if she wears men's clothing."
4. Women's care and domestic roles make them suitable for processing, marketing, and input supply activities. They are more organized, caring, and capable of multitasking which makes them better at processing and producing quality products for families.  
"Lack of women in processing, marketing and storage would result in downward performance of the relevant nodes in the value chain", echoed one participant.
5. Women do not have access to finance because of lack of collateral. High landing rates also negatively impact women's ability to access finance.

### 5.2.2 What disempowering factors, including gender norms, can negatively affect the economic resilience of women value chain actors to the effects of climate change?

- Lack of women's financial empowerment
- Lack of access to processing equipment that are women friendly and economically beneficial
- Lack of access to technologies and innovations that are economically resilient
- Lack of access to timely climate information
- Lack of access to climate-smart technologies

- Lack of improved access to ICT infrastructure
- Arbitrary levies and taxes, disasters such as floods & droughts, epidemics like COVID-19 and others, political insecurity such as kidnappings

Table 5: Key norms identified for the chicken value chain

Norms	
1	Women should not engage operate hatcheries
2	Women should not own chicken farms away from their homes
3	A woman cannot get credit/loan for chicken farming without the approval of the husband
4	Women should not own land for chicken production
5	A man will be considered less of a man if he is involved in the processing of chicken such as dressing chicken
6	Women are not supposed to slaughter chickens for sale
7	Women should not be the ones to transport the inputs (for production) and chickens and chicken products for sale outside their place of residence
8	Women should not spend long periods outside their homes engaging in the sale/trade of chickens and chicken products
9	Men should be responsible for marketing chicken, not women
10	Women chicken farmers should not engage in negotiating prices with traders who come from outside their place of residence
11	A woman cannot own a peppe soup joint
12	A woman should not be a chairperson/leader chicken association or cooperative

### 5.3 Chicken Value Chain Actor Analysis

This section summarises results from the actor analysis tool to provide details of who the chicken value chain supporters are and the support they offer to the cassava value chain actors.

#### What support do value chain supporters offer to the value chain actors?

- Transporters: offer appropriate logistics and delivery of inputs & products
- Insurance: provides security and bail out in case of disasters, losses, diseases, and epidemics
- Banking & finance: provide loans, grants, and credit facilities for startup or boosting business
- Researchers & academia: provide capacity building, innovations, and training for improved production
- Extension agents: disseminate new innovations from research to farmer/actor
- Engineers: build structures according to need, fabrication of equipment and tools
- Animal Scientists: serve as animal husbandry managers on the farm
- Veterinarians: work in disease control and general animal health
- Poultry nutritionists: formulate chicken diets, feed milling and provide nutrition information a farmer would require
- Associations (Poultry Association of Nigeria, NIAS): standards and regulations, monitoring and surveillance

### **5.3.1 What climate-smart or other technologies approaches are available for adoption by the different chicken value chain actors to improve performance?**

#### **Climate-smart technologies and approaches available for adoption by the different chicken value chain actors to improve performance**

The following climate-smart technologies are available and can be adopted by chicken value chain actors:

1. Real-time weather forecasting
2. Biosecurity strategies; and
3. Public health approaches.

Through sensitization from poultry associations, the potential for adoption of these technologies have increased. Farmers now have access to weather information on their phones. Actors are installing biosecurity points in their facilities (some due to disasters they may have experienced in the past).

However, stakeholders could not identify any climate-smart technologies that women or men in the different value chain nodes have been able to adopt or disadopt.

Table 6: Chicken Value Chain Actor Analysis

Typology of value chain supporter	Socio-economic characteristics of the category	What services are provided by the value chain supporter (these include climate-related services)	What actors does the chain supporter support	How does the value chain supporter support women value chain actors and promote their resilience to climate change impacts (Can specify per node)	How does the value chain supporter support men value chain actors (Can specify per node) to promote their economic resilience to climate change impacts	If the type of support differs for men and women actors, please highlight the differences. How do these differences impact men's and women's economic resilience to climate change impacts?
<b>Banking &amp; Microfinance</b>	-Financial lenders	-Loans and finance banking	-All	-Inputs acquisition (loans, banking)	-Inputs acquisition (loans, banking)	-Same
<b>Insurance</b>	-Security against disasters and other calamities	-Security -Advertisement	-All	-Security -Compensation	-Security -Compensation	-Same
<b>NGOs</b>	-Partnerships -Capacity building/Training -Back stoppers -Provide startup resources	- Capacity building/Training -M&E services -Sensitization -resource mobilization -Proposal writing/business plans -Provide startup resources	-All	-Capacity building -Awareness creation -Empowerment	-Capacity building -Awareness creation -Empowerment	-Same
<b>Researchers</b>	-Technologies/innovations -Capacity building -Community development	-CSA technologies -CIS -Innovations & technologies	-All	-capacity building -Issue responsive innovations	-capacity building -Issue responsive innovations	-Same

Typology of value chain supporter	Socio-economic characteristics of the category	What services are provided by the value chain supporter (these include climate-related services)	What actors does the chain supporter support	How does the value chain supporter support women value chain actors and promote their resilience to climate change impacts (Can specify per node)	How does the value chain supporter support men value chain actors (Can specify per node) to promote their economic resilience to climate change impacts	If the type of support differs for men and women actors, please highlight the differences. How do these differences impact men's and women's economic resilience to climate change impacts?
<b>Extension agents</b>	-Dissemination of news ideas & innovation -link industry actors & researchers	-Capacity building/training	-All	-Issue-based capacity building -Timely awareness/early warning	-Issue-based capacity building -Timely awareness/early warning	-Same
<b>Regulation agencies (PAN, NIAS, NAVDAC)</b>	-Provide standards & guidelines -Compliance enforcers	-Enabling regulations & guides for the value chain	-All	-Enforcement -Capacity building on new laws & regulations	-Enforcement -Capacity building on new laws & regulations	-Same
<b>Association &amp; Cooperatives</b>	-Enforce compliance -Provide security for members (financial)	-Capacity building -Advocacy & lobby for members	-All	-Enforcement -Capacity building on new laws & regulations	-Enforcement -Capacity building on new laws & regulations	-Same
<b>Government</b>	-Compliance enforcement -Provide loans/subsides/empowerment	-Compliance enforcement -Provide regulations -Provide loans/subsides/empowerment	-All	-Enforcement -Capacity building on new laws & regulations -Empowerment -Subsidies	-Enforcement -Capacity building on new laws & regulations -Empowerment -Subsidies	-Same

## 6 Conclusion

The workshop obtained evidence from stakeholders in the cassava, catfish, and chicken value chains to provide an understanding of the normative constraints that prevent men and women in Nigeria from becoming economically resilient to climate change impacts. Common factors that limit women's economic resilience to climate change impacts include the lack of women's access to land, and financial services, lack of decision-making power and norms that regard men as having overall decision-making power over household resources and women. Some structural issues related to a lack of supportive physical infrastructure and poor regulatory and policy environments put both men's and women's value chain actors at risk of not being economically resilient to the impacts of climate change. Hence, a holistic approach that integrates gender-sensitive agricultural policies can achieve economically and socially sustainable impacts that promote women's economic resilience to climate change impacts.



## 7 Annexes

### Annex 1: Agenda

HER+ Initiative Stakeholder Workshop  
Ibadan Nigeria  
IITA, November 10 – 11, 2022

<b>Day 1: 10 November 2023</b>		
<b>Time</b>	<b>Activity</b>	<b>Responsible Person</b>
08:30 – 09:00	- Registration of participants	Agness Chileya
09:00– 09:10	- Welcoming remarks	Jumoke Adeyeye
09:10 – 09:20	- Objectives of the meeting and program	Netsayi Noris Mudege
09:20 – 09:50	- Introductions	Lizzy Muzungaire
9:50 – 10:00	Logistics	Jumoke Adeyeye
10:00-10:30	- Climate change impacts on Value chain (3 Groups)	
<b>10:30 – 11:00 HEALTH BREAK</b>		
10:30- 11:00	- Climate change impacts on Value chain (3 Groups)	
10:30- 11:00	- Group presentation	IITA
11:00 – 11:10	- Introduction of the value chains mapping exercise	Netsayi
11:10 – 12:40	- Mapping exercise (three groups)	
12:40 – 13:10	- Plenary session	Lizzy
	<b>13:00 – 14:00HRS LUNCH</b>	
14:00- 14:10	- Introduction of action analysis tool	Netsayi Noris Mudege
14:10 – 15:00	- Actor Analysis (3 groups)	
15:00-15:30	- Plenary presentations	Jumoke Adeyeye
15:30– 16:00	<b>HEALTH BREAK</b>	
16:00- 16:30	- Plenary presentations	Jumoke Adeyeye
16:30	- <b>END OF DAY</b>	



<b>Day 2: 10 November</b>		
<b>Time</b>	<b>Activity</b>	<b>Responsible Person</b>
<b>08:30– 09:00</b>	- Registration of participants	Agness Chileya
<b>09:00– 09:20</b>	- Recap of the previous day	Lizzy Muzungaire
<b>09:20 – 09:30</b>	- Introduction to social norms and the social norms exploration tool	Netsayi Noris Mudege
<b>09:30– 10:30</b>	- Social Norms exploration (three groups)	Netsayi Mudege
<b>10:30 – 11:00 HEALTH BREAK</b>		
<b>11:00- 11:45</b>	- Plenary presentations on norms	Jumoke Adeyeye
<b>11:45- 12:30</b>	- Identification of key groups and next steps	IITA
<b>12:30 – 12:50</b>	- Workshop evaluation	Keagan Kakwasha
<b>12:50- 13:00</b>	- END OF WORKSHOP	
	<b>13:00 – 14:00HRS LUNCH AND PRAYER</b>	

## Annex 2 Workshop participants list

### The HER+ Stakeholders' Workshop November 10 and 11, 2022, IITA, Ibadan

S/N	Participant	Sex	Affiliation	Category	Email Address	Value Chain
1.	Mr Tolulope Samuel Ojedele	M	Department of Animal Husbandry, Federal Ministry of Agriculture and Rural Development , Ibadan	Government	<a href="mailto:tolulopesamueloje@gmail.com">tolulopesamueloje@gmail.com</a>	<u>Chicken</u>
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