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WOMEN'S ROLE IN AGRICULTURAL VALUE CHAINS – LESSONS LEARNT FROM VCA4D – GENDER EQUALITY ANALYSIS

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Abstract

This synthesis provides a comparative analysis of the situation of a large number of value chains studied by the VCA4D project, between 2016 and 2022, from a gender equality perspective.

It is a contribution to a discussion on gender as rooted in in-country tangible evidence, as described by the social experts of VCA4D, which add value to more theoretical and conceptual discussions. It is conducted by Agrinatura researchers that are not gender experts, which positions them in a non-compromised situation. This allows to look at the reports without a-priori-idea. Yet, they have the limitation of being confined in value-chain orientated and context-specific approaches, carried out over short periods of time, which do not reflect broader insights.

A stepwise analysis made it possible to structure the synthesis into three steps: firstly, a review of the trends in gender equality indicators in the different studies based on the scores given by the VCA4D researchers per gender items; secondly, an extensive comparative analysis of the value chain results, taking just the most representative, organised by common product type and per country. In the second step, the findings of step one, are combined with the VCA4D experts descriptions when replying to a set of key-questions; finally, a discussion of the different results in the form of lessons learnt. For this last discussion, all 36 studies are considered and the analysis stems from a more holistic look, highlighting aspects, that were not foreseen, but became apparent from reading all the reports' descriptions, and its relevance was confirmed by recent literature consultation.

From the statistical analysis it was clear that the worse scores (women at higher risk) concern inequality of workloads, including domestic work and childcare, inequality of land rights, the hardship of women's position in production activities, and the women's access to resources and services such as credit. Women's participation in decision-making in the value chain was generally higher than expected, though women's collective cooperation was generally low. Using this analysis, it was, however, not possible to identify either a "country effect" or a 'value chain effect', mainly due to the few number of cases that resulted from this disaggregation and the variety of items at stake, some good scores being combined with bad scores, yet there are some interesting trends that should

be taken into account. As for the type of value-chain, although it was possible to identify the worse and the best cases, this general assessment stems from different reasons, so there is not a causal link between the type product of the VC and the scores. It is, nevertheless, interesting to note that it was detected a gender bias in the scoring process since. The worse situations were identified by female experts, and the best by male experts.

From the extensive analysis, which describes the country situations in more detail, the country effect became nevertheless more important than the VC effect, which reinforces the importance of the national context for gender equality.

From the in-depth analysis of the 36 reports' descriptions, some commonalities were identified and confirmed by the literature reviewed, which made it possible to highlight the lessons learnt about gender equality, referring to some situations that were not foreseen by the VCA4D approach, but emerged from the lessons learnt from broader studies, as combined with a finer analysis of the different contexts.

1. Introduction and objectives

Three out of every four poor people live in rural areas, and most of them depend directly or indirectly on *agriculture*¹ for their livelihood (World Bank, FAO, and IFAD, 2009). The majority (more than 70%) are small family farms with less than 1 hectare (FAO, 2021). These rural communities' livelihoods were negatively impacted by the growing population rates, resulting in scarcity of arable land and water, in combination with scarcity of other natural resources. These risk situations have been exacerbated by climate change, and biodiversity loss, associated with intensive farming which highly affect the most vulnerable sectors of the rural population, which is the case of women. Keeping traditional rain-fed agricultural practices and being dependent on climatic seasonality in their agriculture production, combined with being in charge of most of community life dynamics, women are among those who suffer most from the impacts of climate change and natural resource degradation.

This synthesis will look in particular at *gender equality* in a variety of agricultural value chains (VC).

We assume that *gender equality* refers to the equal rights, responsibilities and opportunities of women and men. This implies the recognition of their (gender) different interests, needs and priorities. It also assumes that the promotion of gender equality should concern and engage men as much as women. However this synthesis will look, in particular, at women's equal rights and opportunities.

In many developing countries, women make up almost half of the world's farmers, and over the last few decades, they have broadened their involvement in agriculture, yet with limited access to resources and services. They are the main farmers and producers of food crops. In situations where they are not producers, they are in any case, responsible for their households' nutrition and food security. This explains in part why, despite the women's strong connection with agricultural activities, only a small part of the women farmers is involved in innovative practices leading to higher-value agricultural productions (World Bank, 2017). In other words, for many rural women, the access to innovative processes that would reduce their vulnerability, is denied, and so is denied the agency to transform their traditional roles.

¹ The broad definition of "agriculture" includes not just agriculture but also forestry, fisheries, land and water, agro-industries, environment, manufacturing of agricultural inputs and machinery, regional and river development, and rural development.
www.fao.org/unfao/bodies/council/cl1115/w9751e.htm.

This confinement to traditionally defined roles shows at what point women's discrimination² has to be understood in a holistic perspective, in the sense that it challenges their intrinsic freedom to decide about their lives, and it is thus not circumscribed to their engagement in agricultural practices, with important repercussions for the whole rural society to which they belong.

The disengagement of women from agricultural innovation pathways is slowing these countries' progress toward the accomplishment of Sustainable Development Goals (SDG) (FAO, ADB 2013), in particular SDG2 to "end hunger, achieve food security and improved nutrition and promote sustainable agriculture" by 2030. This results from the fact that women are the main food providers and the vulnerability of the whole household increases if women's vulnerability increases, generating negative impacts on all family members' wellbeing. In the same way, gains in food security are mainly due to improvements in women's societal status.

The VCA4D model, to assess the social, economic and environmental dimensions of sustainability, conventionally viewed solely in terms of their capacity to generate income, introduced several other aspects, aimed at understanding whether actors, acting at different stages, are in a satisfactory situation, or rather at risk, requiring mitigation measures for greater inclusion and sustainability.

The VCA4D project has implemented around 40 value chains studies since 2016. The current synthesis aims to describe how 36 VCA4D analyses (2016- June 2022) reflect the gender equality situation in the partner countries rural livelihoods. The experts working on the social aspects of the value chain, use a tool known as Social Profile developed by the DG-INTPA. This tool's purpose is to give a picture of the value chain at a given time by assigning scores to 63 questions that cover the six areas³ of the social analysis, within a gender equality perspective. The experts are also asked to base their analysis on the consultation of the literature (mainly country specific-reports), apart from field surveys, focus groups and interviews organized during field missions.

The gender equality analysis explores the different degree of women's involvement, in the value chains, and the relative situation of women depending on the nature of the VC products as combined with the socio-cultural and political realities of the country. The indicators identified for the general social analysis, thus make it possible to insert it, not into pure economic rationality, but into the economy embedded into social norms, institutions and policies. They do so by taking into account the complexity and diversity of social and cultural environments, especially looking at the communities that produce and consume these value chain's commodities, their motivations and individual and collective behavior. They also attempt to highlight these 36 VCs commonalities, helping to draw a broader picture of the women's situation in diverse geographies and reflecting a diversity of social, cultural, economic, and political contexts. For instance, from the comparison of these different studies, it became apparent, that subsistence and commercial crops influence differently the gender roles.

The synthesis is structured as follows. First, we present the methodology used. Then, we go deeper in the approaches adopted in the VCA4D project, while the last part presents the results of the synthesis. These will be presented in three stages: firstly, a systematic statistical approach to the scores assigned by the experts, which aims to put into perspective the different value chains studied in light of the different domain and

² For the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), discrimination against women" shall mean any distinction, exclusion or restriction made on the basis of sex which has the effect or purpose of impairing or nullifying the recognition, enjoyment or exercise by women, irrespective of their marital status, on a basis of equality of men and women, of human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field. (CEDAW 1979)

³ The six areas for the analysis of social sustainability are: working conditions, land and water rights, gender equality, food and nutrition security, social capital, living conditions.

sub-domains; secondly, an extensive analysis, both quantitative and qualitative, of a selection of the VCA4D studies, will highlight the most salient facts, on gender equality, resulting from the diversity of situations studied. Finally, in addition to the findings from the various VCA4D studies, some results from desk research will be introduced to complement the lessons learnt with a view to benchmarking and better addressing all gender dimensions, including those that were less apparent, less directly linked to the questions raised or even not considered by the VCA4D framework. The synthesis finalizes with a summary with recommendations. They aim at contributing to awareness raising about the need for implementing gender-responsive policies enabling the achievement of gender equality and women's empowerment not just to consider the situation of food scarcity at global level, but also to contribute to the discussion on transformative measures in a broader range of gender inequalities.

2. Methodology

2.1 The VCA4D approach to gender equality

As described above, apart from the assumptions thematically organized for the social analysis, a list of themes, or domains, presented as (17) questions, helped to guide the analytical process. These questions reflect development concerns when appraising VC operations. They were designed to ensure that no important wide-ranging aspects were left aside. The analysis should inform on how the investment, in such VC, may affect the interaction between different actors (i.e. concerning access to facilities, social capital, gender equality, etc.) and the general environment, taking into account the VC actors' both social and economic sustainability.

The series of questions were thus meant to help the analytical process, not to limit the investigation to one-off answers. They were also expected to support the social expert in collecting relevant information and pointing out critical points to be clarified and or further considered.

The domains and sub-domains, examined systematically by the social experts in the area of gender equality, relate to women's livelihoods, specifically to their access to essential resources and services (such as land, credit and extension services), their economic activities, their participation in decision-making, as well as in leadership and collective responsibility, also their daily domestic roles and related burden.

Table 1: Sub-domains and questions examined in the gender analysis

| |
|--|
| 3.1 Economic activities |
| 3.1.1 Are risks of women being excluded from certain segments of the value chain minimised? |
| 3.1.2 To what extent are women active in the value chain (as producers, processors, workers, traders...)? |
| 3.2 Access to resources and services |
| 3.2.1 Do women have ownership of assets (other than land)? |
| 3.2.2 Do women have equal land rights as men? |
| 3.2.3 Do women have access to credit? |
| 3.2.4 Do women have access to other services (extension services, inputs...)? |
| 3.3 Decision making |
| 3.3.1 To what extent do women take part in the decisions related to production? |
| 3.3.2 To what extent are women autonomous in the organisation of their work? |
| 3.3.3 Do women have control over income? |
| 3.3.4 Do women earn independent income? |
| 3.3.5 Do women take part in decisions on the purchase, sale or transfer of assets? |
| 3.4 Leadership and empowerment |
| 3.4.1 Are women members of groups, trade unions, farmers' organisations? |
| 3.4.2 Do women have leadership positions within the organisations they are part of? |
| 3.4.3 Do women have the power to influence services, territorial power and policy decision making? |
| 3.4.4 Do women speak in public? |
| 3.5 Hardship and division of labour |
| 3.5.1 To what extent are the overall work loads of men and women equal (including domestic work and child care)? |
| 3.5.2 Are risks of women being subject to strenuous work minimised (i.e. using labour saving technologies...)? |

It should be noted that the analysis provided for other sub-domains, than gender equality, were also integrated into the present compilation (mainly in the final more holistic approach aiming at identifying the lessons learnt): for example, the access of women to health and education, as well as to nutrition and food security, yet the main information used was the one collected using the gender equality indicators.

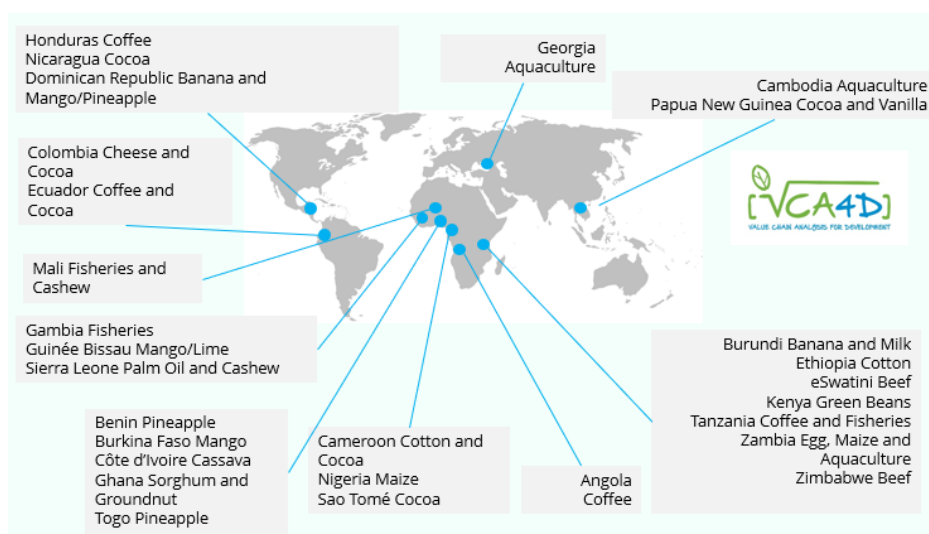
2.2 Rational of the synthesis

The synthesis aims to analyse the reality of gender equality in the value chains in three ways: i) a statistical approach that encompasses all the 36 VCA4D⁴ value chain studies tackling the relative weight of the scores assigned by the experts on the Social Profile grid; ii) an extensive approach which focuses on a smaller number of studies (23) that allows to better compare the situations for the same product/ commodity, in different countries, or for different value chains in a given country; iii) a discussion through an in-depth analysis of the whole reports' social assessment, supported by literature review to highlight the main lessons learnt from such a variety of situation.

2.2.1 The statistical comparative approach

The objective of the statistical approach is to have a general overview in order to identify the main features, problems and risks women face, based on the scores that were marked by the social experts, and their proportionality, in all and each of the value chains. This broad description of the experts' assessments allowed for the selection of the studies to be considered for a deeper extensive analysis.

Map 1: Map of the value chains by country



2.2.2 The extensive comparative approach

In order to deepen the analysis, some VC studies were clustered according to the nature of the VC commodity. Only 23 cases and 10 commodities (out of the 36) could be grouped as such. The 10 commodities were: Aquaculture, Cocoa, Coffee, Cotton, Fisheries, Food crops, Fruit, Horticultural products, Livestock products, Cashew/Palm⁵, as indicated in Table 2. Thus, in addition to the “photographic situation” provided by the experts' scores using the *Social Profile* tool, an analysis of gender equality per product

⁴ 36 VCA4D studies were completed by time of the preparation of this synthesis. The latest number by November 2022 is 42 studies.

⁵ Considered cash crops

clusters, following the Social Profile sub-domains, was carried out across the 23 selected studies.

Such analysis made it possible to identify the trend in the assessment of the score levels for each value chain considering gender equality situations in the different value chains and countries.

Table 2: value chain category by country

| Category | Value chain (specific products) and countries |
|------------------------|---|
| Aquaculture | Cambodia, Georgia, Zambia |
| Cocoa | Cameroon, Ecuador, Nicaragua, Papua New Guinea, São Tome and Principe |
| Coffee | Angola, Ecuador, Honduras, Tanzania |
| Cotton | Cameroon, Ethiopia |
| Fisheries | Mali, The Gambia |
| Food crops | Ghana <i>groundnut</i> , Zambia <i>maize</i> , Ghana <i>sorghum</i> , Côte d'Ivoire <i>cassava</i> , Nigeria <i>maize</i> . |
| Fruits | Burkina Faso <i>mango</i> , Burundi <i>banana</i> Guinea Bissau <i>mango</i> and <i>lime</i> , Dominican Republic <i>banana</i> , Togo <i>pineapple</i> , Dominican Republic processed fruits, Benin <i>pineapple</i> |
| Horticultural products | Kenya <i>green beans</i> , Papua New Guinea <i>vanilla</i> . |
| Livestock | Egg Zambia, Beef e'Swazini ⁶ , Beef Zimbabwe |
| Cashew/Palm | Palm Oil Sierra Leone, Cashew Sierra Leone, Cashew Mali |

These extensive and comparative analysis results, combining quantitative and qualitative data, made it possible to assess which type of value chain (commodity) or country situation affects positively or negatively gender equality within each specific context.

2.2.3 The in-depth approach

The final in-depth approach was based on a systematic review of the social analysis descriptions in the 36 reports, which allowed for more holistic (descriptive) interpretations at the country level. The learning from this review was consolidated with the literature consulted. A grid with the studies' main topics and those resulting from the literature review is presented in Annex 4.

3. Results

3.1 Statistical analysis: general overview

The compilation of the Social Profiles showed both similarities and contrasting results. As stated above, a possible bias related to the social expert's subjective perception of each situation emerged⁷. However, the experts used the same framework making it possible to understand both how the social environment influences the realities of the value chain, and how the activities of the VC affect the social environment. They made also use of national and international goals and norms (conventions, gender standards, public policies, etc.) depending on the question, or each country-specific context (i.e. comparison with other value chains or other in-country situations).

⁶ Or Swaziland

⁷ Some experts were involved in more than one study, in total 27 different social experts for 37 different studies (out of 27 social experts, 11 were women). The six studies with the lowest gender scores were all scored by women experts (the 2 studies were carried out by the same expert in this group of studies). The 3 highest rated studies were scored by men experts.

The tool *Social Profile* allowed for a process of simple scoring of the proposed questions, facilitating the experts' judgement. This tool produces a graphic representation in the form of a "Radar chart" (Annex 3) which visually sums up the diversity of information and scores, in the objective of enhancing communication towards decision-makers. Moreover, this chart will have the function of a baseline for new studies.

The 17 questions, to be scored, allow to evaluate the main risks and negative impacts of the VC's activities according to the different themes. The experts assign one of four possible scores per question using a color pallet: *high* respect for women rights and low risk and impact (dark green), *substantial* respect for women rights (light green), *moderate/low* (orange), *not at all* meaning high risk (red). There is also *not applicable* (*na*) when there is not enough information, or the question is not relevant to that specific case. The experts are also asked to briefly justify each score. The table of the scoring of the 36 studies on Gender Equality domain is shown in Annex 1.

The statistical approach of the 36 *Social Profiles* enabled the identification of a set of general observations:

- The experts made extensive use of the range of scores proposed (see Annex 1) since there were no empty cells.
- Out of a set of 612 observations (17 questions X 36 studies), the dark green score level on the table (corresponding to the best women situation) was used 40 times (i.e. 7% of all scores), the light green (corresponding to a substantial respect for women rights) was used 163 times (i.e. 26%), the orange (corresponding to an intermediate situation, "not so good") was used 324 times (i.e. 53%), the red (corresponding to a bad situation, women at a higher risk) was used 74 times (i.e. 12%), "not applicable" (*n. a*) was used 11 times (2%) (which is low compared to questions of the *Social Profile* that reinforces the model adequacy). Although these results reflect a higher negative assessment of gender equality, the intermediate scores were most frequently used, either because the situations were at once not that good for women, but also not too bad; or probably because the experts would have liked to have more time to refine their analysis, so in order to mitigate their possibility of failure chose a moderate score level.
- Some VC situations can be considered rather bad from the point of view of gender equality (women at higher risk) as they score red in at least in five out of the 17 questions (that is the case of Ghana *sorghum*, Cameroon *cocoa*, Nicaragua *cocoa*), some can be considered rather good as they score dark green on at least in four out of 17 questions (i.e. Benin *pineapple*, Togo *pineapple*, the Gambia *fisheries*); other show very mixed scores as they have both a large number of red and dark green scores (i.e. Mali *cashew*, Côte d'Ivoire *cassava*)⁸.
- The red was mainly used for questions on the equality of workloads (as compared to those of men), including domestic work and childcare (15 VCs), the equality of land rights (13), the hardship of women's work (11), and the women's access to credit (10). The other aspects seem to be much less problematic (only four VCs have used the red to score them).
- The dark green score (very good situation) was more frequently attributed to the participation of women in the VCs (7 VCs) and to a lesser extent to their collective organisation (five VCs).

⁸ Expert bias may have come into play in the latter case, with some experts deliberately trying to contrast their scores more than others.

- “Not applicable” is very unevenly distributed across the different VCs (mostly applied in five VCs and in particular in two).
- The six studies with the lowest gender scores were all scored by women experts (the two studies were carried out by the same expert in this group of studies). The three highest rated studies were scored by men experts.

3.1.1 Statistical analysis: comparative assessment of the value chains

If we take into consideration the themes with the best scores, women generally participate more actively in the Côte d'Ivoire *cassava*, Guinea Bissau *mango/lime* (more in lime than in mango production), Kenya *green beans*, Burundi *banana*, Ghana *groundnut* and Nigeria *maize*, which are either food crops or crops easily sold by women in local markets (i.e. lime and groundnuts). As for the management of their income, women are quite autonomous in Burkina Faso *mango*, Togo *pineapple*, Mali *cashew*, Georgia *aquaculture*. Yet, these higher score levels cannot be taken independently, since they are combined with bad scores for the same VCs. Such is the case of women's overwork and their low access to credit and land, which strongly reduce their personal autonomy affecting their overall gender equality.

The value chains that display better results for women, taking into account the highest score levels (including intermediate scores), are Benin *pineapple*, Togo *pineapple*, Burundi *banana*, and to a lesser extent Kenya *green beans* and Cambodia *aquaculture*.

On the other hand, the most worrying situations were observed in Ghana *sorghum*, Cameroon *cocoa*, Nicaragua *cocoa*, and to a lesser extent in Dominican Republic *fruits*, Angola *coffee* and Zimbabwe *beef*.

We will focus here on the most critical cases with an effort to understand what are the bottlenecks that prevent these value chains from being socially sustainable from the gender equality perspective (see Annexe 2 for more detailed information).

In the *sorghum* value chain in Ghana, the main constraints for women are related to the access and freedom to decide about credit. There are also bad scores about their workload, the control they have over resources and services, the women's ability to control their income and to participate in production decisions and other spheres of influence. Women's access to land, land titles, credit and the ability to farm are also much lower than in the case of men.

In Cameroon *cocoa*, the situation is fair in terms of women's empowerment. However, it is rather poor in terms of women's inclusion in the value chain, their decision-making capacities (especially in terms of production, labour and use of income); and women's access to resources and services (especially credit and land).

In the *cocoa* value chain in Nicaragua, the situation is bad for women from the point of view of land inheritance (a situation that is not specific to this value chain) and women's access to credit (a situation that is bad for small-scale producers in general, but that is even worse for women). Also in what concerns women power balance in various organizational bodies, and the hardship of their tasks. In general, all domestic tasks are done by women. Their work is even harder when combined with the hard work in the *cocoa* production.

In the *coffee* value chain in Angola, women situations of inequality, as compared to men, are reported mostly in what refers the sharing of work and the arduousness of women's domestic tasks combined with their reduced to land and the general women's exposure to the risk of exclusion.

In the *beef* value chain in Zimbabwe, which was also one of the worse cases, women have a reduced participation in the value chain, with limited access to land and credit,

and limited influence in decision making (little representation of women in decision-making bodies). In line with local social norms, livestock is a male activity and women are more involved at the farm level.

In the *processed fruits* value chain in the Dominican Republic, the overall situation is slightly less bad for women than for the previous three countries, but there is still a lot of progress to be made in the share of work and reduction of the drudgery of women's work.

It should be noted that in Ghana, Cameroon and the Dominican Republic, other VCA4D studies have also been carried out and less problematic situations have been reported.

It may therefore be counter-intuitive, to conclude from these statistical results, that there is a more important 'value chain effect' than a 'country effect' on gender equality, one assumption that we will try to explore further below. It is also possible that the expert (gender) bias may have played a role in these assessments.

3.1.2 Statistical analysis: identification of specific country or value chain effects

Following the findings concerning different VC in the same country (Ghana, Cameroon and the Dominican Republic), we tried to look more systematically into each country situation, in order to understand whether there is a "country effect", i.e. whether the social profiles of value chains in the same country are similar. For Zambia, where three studies were conducted, two by the same expert, the same scores were given 24 times out of 51 (17 questions * 3 studies), but the number of common occurrences is higher when comparing *aquaculture* and *egg* value chains (10) or *aquaculture* and *maize* value chains (9) (different experts) than when comparing *maize* and *egg* value chains (5) (same expert)⁹. In countries where two studies were conducted, out of 17 possibilities, there are 14 similar occurrences for Sierra Leone (same expert), 12 common occurrences for Papua New Guinea (different experts, one abstention – *not applicable* - for one study), 11 common occurrences for Ecuador (different experts), 11 common occurrences for Dominican Republic (different experts), eight common occurrences for Mali (different experts), six common occurrences for Cameroon (different experts), five common occurrences for Ghana (different experts). It is therefore difficult to conclude that the country-effect has a strong impact on the gender equality profile.

In the same way, we questioned the 'value chain-effect'. There are 79 similar occurrences out of 170 on the five *cocoa* studies (different experts), 48 common occurrences, out of 102, on the four *coffee* value chains (same expert on two studies), 17 similar occurrences, out of 51, on the three *aquaculture* value chains (different experts), nine similar occurrences, out of 17, on the two *beef* value chains (different experts), eight common occurrences, out of 17, on the two *cotton* value chains (same expert), seven occurrences, out of 17, on the two *maize* value chains (different experts), five similar occurrences out of 17, on the two *fisheries* value chains (different experts), five occurrences out of 17, on the two *pineapple* value chains (different experts), five occurrences out of 17 possible on the two *cashew* value chains (different experts). It was considered not relevant to compare the situations for the *mango* value chains (associated with other products in the VC studies: *pineapple* in the Dominican Republic, *lime* in Guinea Bissau) or banana (little relationship between the Dominican Republic's export *banana* and Burundi's food *banana*).

From these two sets of results, the country-effect was still more important than the value chain-effect. This is explained by the importance of the national context in what concerns gender equality (cultural aspects, level of development of the country, public policies, etc.).

⁹ This allows us to exclude here the bias that would be linked to the expert.

However, the assessment of the value chain-effect may have not been neutral. If we compare the five *cocoa* value chains with the four *coffee* value chains (it was more difficult to make this type of comparison for the other products, which are fewer in number), we can see that the women situation in the *cocoa* production is worse than that of the *coffee*.

Indeed, after this statistical and systematic review, which gives an overall picture of the social profiles of all the value chains studied, following the same method, the synthesis' experts decided to enter into a more extensive analysis, combining quantitative and qualitative data, of a certain number of value chains to better characterise and compare the situations of women, and general gender inequalities, and draw lessons from these results.

3.2 Extensive approach per VCA4D social analysis sub-domains

What follows is a comparative analysis of the situation of 23 value chains clustered per commodities' category. A quantitative analysis using the scores of the statistical analysis, for the different social analysis sub-domains and themes related to gender equality, was combined with a qualitative analysis of the social experts' answers to the key-questions per sub-domain, making it possible to disaggregate the gender thematic into more specific aspects. Ten VCs (commodities) were selected to facilitate the comparison: *aquaculture, cocoa, coffee, cotton, fisheries, staple food crops, fruits, livestock, horticulture, cashew-palm* (see Table 2). It is important to stress that the number of studies per commodity varies between six (*food crops* and *fruits*) and two (*cotton, fisheries horticultural products*). *Aquaculture, cashew-palm, livestock products*, three studies; *coffee* four studies; *cocoa* five studies.

3.2.1 Women situation: economic activities

Sub-domain 1: *Are risks of women being excluded from certain segments of the VC minimised? To what extent are women active in the VC (as producers, processors, workers, traders, etc.)?*

There is *moderate/low* (44.4%) or *substantial* (33.3%) risk of women to be excluded from the ten value-chains. 11.1% of the experts even considered that risk to be *high* (score *not at all* in the score scale for the worst rating) (Table 1, Annex 3). The risk of women exclusion is lower in *fisheries* and *fruit* value chains (experts scoring *higher* inclusion) which are commodities easily sold in local markets; yet the risk of exclusion is considered *substantial* for *cashew/palm*; and *substantial* and *high* (depending on the studies) for *cocoa* and *coffee* (commercial crops in some studies considered men's crops) and *food crops*.

Despite the risk of exclusion, the women activity in the different segments of the VC is considered *moderate/low* (30.6%) and *substantial* (44.4%) and even high (19.4%). Women are more actively engaged in *aquaculture, food crops, fisheries, fruit* and *horticultural products*. *Coffee* is scored *moderate/low* or *substantial*, *cotton* is scored *substantial*. The worst situations (5.6% *not at all*) were scored by the experts for *cocoa* and *livestock products* (Table 2, Annex 3).

In the *aquaculture* value chains (Cambodia, Georgia, Zambia), in most cases, women are only present in post-harvest activities, some of them are employed. There are also cases of women running processing companies. In Zambia and Georgia, women are excluded from production; instead, they are involved in the processing and trading of farmed fish. In Georgia, *aquaculture* is considered "men's work" and no women own aquaculture farms. Only in Cambodia women are involved in cage, as well as pond production aquaculture within farming communities. *Aquaculture* requires investment in

land, labour and capital. Most women, especially heads of household, do not have these resources.

In the *fisheries value chains*, both in The Gambia and in Mali, women are heavily involved, but particularly in fish processing and trade. As far as production is concerned, they are only present in The Gambia in harvesting (especially oysters). The fishing equipment (pirogues, motors and gear) for sea fishing may be owned by women but is managed by their husbands who finance and equip certain fishing units.

In the *cocoa value chains* (Ecuador, São Tome and Principe, Nicaragua, Cameroon), women are involved in both production and processing activities, but their participation is more noticeable in harvesting and processing (fermentation and drying), and in the process of chocolate making, especially in Ecuador. In Nicaragua, women are also employed in the warehouses of the large trading companies.

In the *coffee value chains* (Ecuador, Tanzania, Honduras), women are involved in all segments of the VC, from primary production to post-harvest work, marketing and processing industries (that is not the case of Angola in which women are mostly involved in the *coffee* production). In Honduras, women participate in all links of the chain, in varying proportions. At the farm level, women represent about 19% of registered *coffee* producers, for about 15% of the coffee area and national production. Women constitute the majority of the agricultural labor force both on family farms and commercial farms (hired labour). The work in *coffee* plantations is (physically) harder as compared to *cocoa*, so men are highly employed in the productive tasks, as compared to women. Women are temporally employed as *coffee* beans collectors. In both Tanzania and Angola, the social experts refer that *coffee* is considered a *male crop*. This gender attribute is not only related to the labor force but also to the land ownership (few *coffee* lands are owned by women). In Angola there are women collecting *coffee* even without being paid, the owner of the plantation having “freed” them from homelessness situations, caused by the civil war side effects.

In the case of *cotton value chains* (Ethiopia, Cameroon); in Ethiopia, women are not expected to work in the cotton fields, especially if they are far from home. This protects them from additional workloads. However, in processing activities, women make up more than 80% of the workers in the textile and clothing sector as ordinary workers. It is interesting to note that women are rarely involved in traditional weaving. In Cameroon, women are forced to work full time for their husbands' cotton farms. Between 10 and 15% of producers are women, owning mainly small (<1ha) and medium (1-5 ha) farms. About 5% of the biggest enterprise staff are women. This number has increased in the last ten years but it is still small. Women are generally very active in the processing sector (filling, weaving, garment making).

In the case of food crops, in the *sorghum value chain* in Ghana, there is a low participation of women linked to the double burden and historical and cultural norms. Certain segments of the VC are particularly reserved for women: pito brewing, trading (in the cash market) and post-harvest activities (cleaning and sorting). In Ghana a brewing company - Guinness Brewing – is even described as having a gender-sensitive human resources policy (being inclusive for women). Yet, if pito brewing becomes formalised and mechanised, there is a risk that men will take control of this activity, and there are no risk mitigation strategies or other policies in place regarding the possible exclusion of women in certain segments of the value chain.

In Burundi, women work as much as men in the whole *banana value chain*, considered one of the VC which scores higher for women equality. They are most active in production, processing, distribution and retailing, but few women are represented in the sector wholesale-trader.

In the *pineapple VC* in Togo, women are active in production (as members of producers groups, owners of plots, etc.), in processing (some are women heads of processing

companies) and in marketing (semi-wholesalers are mostly women). They are even more employed in processing or export companies than men, but contrastingly less numerous in tasks that require physical strength and in positions of responsibility.

3.2.2 Access to resources and services

Sub-domain 2: Do women have ownership of assets (other than land)? Do women have equal land rights as men? Do women have access to credit? Do women have access to other services (extension services, inputs...)?

Regarding the possession of assets other than land, the vast majority of the experts scored women access to these assets as moderate/low (61.1%) followed by *substantial* (25%). The higher scores refer to 8.3% of the ten VC.

The *food crops* VCs have the lowest scores (*not at all*) for women possession of these assets (Table 3 Annex 3). On the other hand, women seem to have more assets other than land in most *cocoa, coffee, fisheries, food crops, cashew/palm, fruits, horticultural products, livestock products* VCs (all scored *substantial*).

When it comes to women's land right, 36.1% of the experts refer *not at all* to most of the VC (*cashew/palm, cocoa, cotton, fisheries, fruits and livestock products*) and moderate/low (41.7%) to aquaculture, coffee, cotton, fruits, horticultural products. The positive scores *substantial* (13.9%) are given to *aquaculture, cocoa, coffee and livestock products* and *high* (8.3%) to *cocoa, fisheries and fruits*. Nevertheless, the responses are mostly negative (Table 4 Annex 3).

With regard to women's access to credit, the majority of the situations were scored moderate/low (58.3%) and *not at all* (27.8%), with only four scored *substantial* (11.1%), while no response indicated a high score for this variable (Table 5 Annex 3). The same is true for access to other services.

Women's access to other services such as extension services and inputs, scored mainly moderate/low level (72.2%) which seems to create more opportunities than access to credit. 25% experts considered the access to other services as *substantial* (Table 6 Annex 3). It is particularly in the *cocoa, coffee, fisheries, food crops, horticultural, fruit and livestock* VCs where women seem to have more access to other services, such as extension services.

In the *most* value chain, women's access to important resources, particularly access to land and access to credit are the greatest constraints to their involvement in those activities.

In aquaculture VC in Cambodia (as in most countries), although legislation gives men and women equal rights to land, apart from customary norms, the women discrimination is influenced by several factors, including limited knowledge of their rights and limited access to legal advice in case of dispute. In Georgia, land ownership is also mainly based on cultural norms. Thus, women own relatively less agricultural land than men. In Zambia, patrilineal societies, when women reside in her husband's village they do not own the land. This has a direct impact on women's ability to become involved in fish farming. In this country's matrilineal societies, the man lives in his wife's house which means a fairer land ownership. Regarding access to credit, it is only in Cambodia where women have more access to credit both as producers, processors and intermediaries, with a considerable percentage of women reporting that they had taken out a loan, mostly being bank loans. In terms of service provision, women in Cambodia also receive the most assistance of training and extension, while in Georgia and Zambia, access to these services for women remains very low.

In the *fisheries* value chain, access to credit is one of the discriminating factors opposing women to men. Very few women have access to credit from banks.

In the cocoa value chain, access to land is also a constraint, but there is a clear difference depending on the country. In Ecuador and Nicaragua, around a 1/4 of rural women own land. In Cameroon, women do not have access to land, unless they are widowed and the deceased husband, or their father, has given them a piece of land. Otherwise, exceptionally, they can buy a piece of land by investing financially. In São Tomé and Príncipe, the land is owned by the State (only 3.1% of women benefited from agricultural land concessions compared to 8.6% of men). In Ecuador, in terms of access to credit, men and women have the same legal rights, but financial institutions consider that women are more punctual in their payments and therefore prefer them as borrowers. In most other countries, women have little access to credit.

In the coffee value chains, access to land seems to be one of the most significant discriminating factor against women. In Ecuador, access to land is mainly through parental inheritance, a process in which parents tend to distribute it unequally in favour of sons, even more so in the case of unmarried daughters, due to “gender constructions, according to which men are the providers of goods”. In Tanzania women only have access to land through their husbands, and they risk losing this access depending on the intentions of the family member who inherits it. upon their death. In Honduras women land ownership is still very low. In Angola, if legally men and women have the same rights, under customary law, women have no right to own land. The conditions of access to credit are identical for men and women, but since women do not have a land guarantee, their access to bank credit is made impossible.

In the context of cotton VC, for Ethiopian cotton, women hold only 8.7% of the agricultural land. Due to the predominance of customary law, women have far fewer land rights, often limited to widows. Women do not inherit land. In Cameroon, women have limited access to vocational training, innovative agricultural inputs and finance. They also have limited access to ownership and control of productive assets and technologies. Women do not normally own equipment such as carts, ploughs and oxen, thus depending on the mercy of their husbands. However, they can buy them with their own savings. Women's access to credit for cotton production is between 10 and 15% and they have no access to other resources.

In staple food crops, although women play an important economic role in groundnut VC in Ghana, they have very limited access to resources and services. In Zambia women who are not married, or who are married under patrilineal rules, have an equal right to cultivate the family land. If they are married under such rules, which is most common, their cultivation rights are passed through their husbands. Women can only access land through their spouse or a male relative. Women do not own their property. They usually have little or no access to land, which also limits access to credit and prevents women from earning their own income.

In the fruit value chains access to resources is in the same situation as in other value chains. In Togo, customary rules favor men when it comes to inheriting land. When it comes to renting or buying land for pineapple production, there is no gender distinction. There is no gender distinction also in access to credit. However, agricultural loans to women are generally difficult to obtain. In the Dominican Republic (VC banana), land rights were historically a men's privilege. This has changed over the past decades with several changes in the law that have given women more equal rights. However, several key actors indicate that there is still a persistent preference for granting land rights to male heirs. In Burkina Faso and Burundi, access to credit is very difficult for women who can only access credit through women's associations and farmers' organisations.

3.2.3 Decision making

Sub-domain 3: To what extent do women take part in the decisions related to production? To what extent are women autonomous in the organisation of their work? Do women have control over income? Do women earn independent income? Do women take part in decisions on the purchase, sale or transfer of assets?

With regard to decision-making on production, it appears that the vast majority of responses scored *moderate/low* (69.4%) (Table 7 Annex 3). Yet, 22.2% *substantial* for the aquaculture, cashew/palm, coffee, food crops and fruits studies, few experts consider that women do not participate at all in decision-making (5.6% for cocoa, food crops and livestock production), but none of the observations consider participation to be high.

Also with regard to women's control over income, the vast majority of responses consider it to be *moderate/low* (47.2%) (Table 8 Annex 3). However, some consider it to be *substantial* (38.9%) and only a few (8.3%) *high*, particularly in aquaculture, cotton and fruit value chains. Women do not have control over income in cashew/palm and food crops.

The responses are more positive about the independent income earned by women (Table 8 Annex 3). The vast majority range from *substantial* (50%) *moderate/low* (38.9%) and *high* (11%) while none of the responses consider that women do not earn an independent income at all.

In contrast to the independent income earned by women, their decision-making regarding the purchase, sale or transfer of assets appears to be worse (Table 9 Annex 3). Indeed, the vast majority of responses (52.8%) consider participation to be *moderate/low* 25% *substantial* (but only 8.3% *high*). Nevertheless, there is a great disparity within the same value chain. Responses can vary from *not at all* to *high*, as is the case in cashew/palm (3 studies).

With regard to women's autonomy in the organisation of their work (participation in decisions to buy, sell or dispose of a business), it ranges from *moderate/low* (52.8%) to *substantial* (25%) and *high* (8.3%), but in certain value chains such as cotton and livestock products, women's autonomy appears to be lower, whereas it is higher in aquaculture and cashew/palm, cocoa and food crops (Table 10 Annex 3).

With regard to the degree of women's participation in production decisions, their degree of autonomy in organising their work and, above all, their control over income and the possibility of earning an independent income, it is also noted that there are disparities according to the value chains and socio-cultural realities of the countries.

In aquaculture, women who own their own ponds and cages make their own production decisions. Decisions are also made jointly by the woman and her husband. With regard to decisions about trade in the market, women are more influential. With regard to autonomy, women have more or less autonomy in the organisation of their work, depending on the level of specialisation. When women are fully active in aquaculture, they organise their work themselves, but they are influenced by social and family norms that impose certain constraints. In Georgia, women are relatively less involved in the decision-making process at the farm level; their decision-making role is expressed more at the level of fish sales where they are the main decision-makers. Decisions on how to spend household income are negotiated between women and men. In Zambia, women are able to earn their own income through their various activities. According to some, this income is pooled with that of their husbands and they decide together how to spend it; while others indicated that the money that men generate is often controlled by them as they are the heads of the household.

In fishing, production decisions are made by men, except in households headed by women, particularly widows, who then take control of the family pirogue to ensure the family's economic needs. They have very little autonomy and are subject to customary laws that place them in a position of submission to their husbands.

For the cocoa value chains, in Nicaragua, women are generally not the decision-makers in the household. This situation is also found at the institutional level, such as in public

institutions, although women may have responsibilities, even at the head of the institution.

In Cameroon *cocoa*, the operation belongs to the man, so does the decisions. Women are not autonomous, they have to follow the work schedule and have no choice in the organisation of the work. The income from *cocoa* belongs to the men and is managed by them. When it is sufficient and if the man cares for his children, part of the income will finance the school. In Ecuador *cocoa* women's voice is not heard equally. However, there are interesting initiatives in which they work as producers, administrators and traders on their farms. In São Tomé and Príncipe, women are absent from positions of responsibility, except in the processing sector, where there are women entrepreneurs (with a high level of education). Legislation does not prohibit the access of women to any position in the different segments of the VC, but the exclusion from positions of responsibility, which is observed in this country, can only be explained by the weight of habits, in a dominant patriarchal society.

In *coffee* value chains, the decision-making power of women is low. In Angola, few women who own coffee farms have some decision-making power and participate more actively in producers' organizations than those who are only co-owners (with their husbands). Women's distrust of this production was evident (considered by them a *men* crop) in which they participate but do not control the income (unless they are owners). In Ecuador women's participation in the decisions tends to be greater when they are members of women's coffee organisations. In Tanzania *coffee* women are traditionally responsible for much of the food, water and energy security for their families. Lack of transparency and sharing of coffee proceeds can, and often does, lead to conflict within the household (Newcourse 2015). In Honduras *coffee* women show autonomy in the organisation of their work, but there are few cases where only the woman receives income from the sale of coffee. Their participation in decisions about buying and selling or transferring goods is also limited, although these decisions are made within the household, without generating major conflicts.

For the *cotton* VCs, in Ethiopia *cotton*, women also face difficulties in diversifying their work and building productive assets to cope with droughts and other climate change shocks. All these factors reduce their involvement in production-related decision-making. Even if women have an independent income, the prospects are less good than for men. In Cameroon *cotton*, women are involved in production decisions for their own fields only. It seems that the larger the farm, the less say women have and the more likely they are to be involved in their husband's farm. On their own fields (provided by their husbands), they are free to decide on production methods. Women can be rather autonomous, except when their husbands need their labour power. The cotton VC undoubtedly increases women's chances of becoming self-reliant and self-confident at least as long as their husbands do not need their labour for long periods. Control over income will depend therefore on their husbands' attitudes.

For the *food crop* value chain, women's decision-making power appears to be *moderate*. In Ghana *sorghum*, women have less decision-making power on production decisions. They are consulted and may also be members of the farmers' group, but the final say and decision is taken by men. Even in cases where women have been allowed to cultivate a plot of sorghum themselves, they have to give the income from the sale of the sorghum to their husbands. However female pito brewers seem to have more power in decision-making on work and household assets. In Zambia, female heads of households are the main decision-makers on maize production. Wives are involved in decision-making through dialogue, but in most cases the final decision is made by their husbands. Female heads of household are autonomous in organising their work, including maize production. Women have much more limited control over income from maize sales, in some cases they are involved in decisions, while in other cases the decision is made solely by their husbands. Groundnut VC in Ghana offers a lesson in empowering women.

As women cultivate their own plots, do their own processing and engage in commercial activities on their own, they have considerable control over the income earned. Women who run their own businesses will be more likely to control their income than women who do joint farming operations with their husbands. Groundnuts provide some self-esteem and financial independence for women involved as producers, processors or traders, but women have very little control over their income in the 'production' segment of the VC. Women have no decision-making power over the sale, purchase or transfer of household assets, including land.

As for *fruit* value chains, in Burundi, women working in the *banana* sector are involved in production decisions, while they are always consulted on decisions concerning the purchase, sale or transfer of goods. Yet, as far as the organisation of their work is concerned, women are only partially autonomous. They explain this by the fact that they participate in almost all the tasks of the sector's activities carried out by their husbands. Women who are self-employed control their income. The vast majority of women with their own income can decide how to use it. In Burkina Faso and in Guinea-Bissau, women are not highly involved in *mango* production. However, during the growing season, women are expected to work in the family field, which is incompatible with work in processing or packaging units. The vast majority of women have control over their own income, but not over their husbands' income. This is also the case for women working in mango factories, provided that the husband has a regular job and a regular salary. In *pineapple* VC in Togo, women who are members of cooperatives or unions have the opportunity to discuss production-related issues and make decisions in these institutions. In the family unit, the woman is autonomous in the management of her plot if she owns one. Women in general have control over their income. In the Dominican Republic (*banana*), women have a relatively high level of decision-making power over the distribution of income within the household. Many women report that they manage the household income and have control over the use and distribution of income.

3.2.4 Leadership and empowerment

Sub-domain 4: Are women members of groups, trade unions, farmers' organisations? Do women have leadership positions within the organisations they are part of? Do women have the power to influence services, territorial power and policy decision making? Do women speak in public?

Regarding women's participation in trade unions, farmers' organisations, most experts rate it as moderate/low (55.6%) and *substantial* (30.6%) and it is particularly *high* in the *cashew/palm, fisheries, food crops* and *fruits* (Table 11 Annex 3). However, none of the responses referred women do not participate in trade unions or organising groups.

With regard to women's occupation of leadership positions in the organisations to which they belong, the vast majority of responses indicate that it is mostly *moderate/low* (69.4%). It is *substantial* in *aquaculture, fisheries* and *horticultural products* (Table 12 Annex 3) It is *high* for *food crops* and *fruits*. The *fruit* value chains show the most heterogeneous responses with responses in all categories ranging from "not at all" to "high".

With regard to women's power to influence services, territorial power and political decision-making, it appears to be generally *moderate/low* (72.2%) or not influential at all (11.1%) (Table 13 Annex 3). Women's power of influence seems to be higher in the *cotton* value chains.

Regarding women's public speaking, it is mainly considered *moderate/low* (55.6%) by most respondents, in all value chains but *cotton*; it is considered *substantial* for 33.3% of the VC (Table 14 Annex 3). Women seem to express themselves more in public in the *aquaculture* and *fruit* value chains (*high*).

In the case of the *aquaculture* value chain (Cambodia, Zambia, Georgia), the women's participation in organisations and unions or farmers' organisations differ from one value chain to another and according to country rules. In Cambodia, there have been relatively

few community-based groups and organisations. Those that exist have been formed by NGOs around specific projects or interests. Women actively participate in community fishing groups, whose committees must include a woman member at meetings. Women are also involved in the provision of feed which they make from their own agricultural resources to supplement or replace the purchase of pelleted feed. When women are active in some activities in their own right, they organize their own work, but they are still influenced by social and family norms that impose certain constraints (Cambodia *aquaculture*).

In Zambia and Georgia, farmers' associations and cooperatives exist in rural areas and women seem to be very active in these groups as leaders.

In all three countries, at the territorial level, women are also present in the communal and district councils, which must have female members. However, despite women's involvement in the groups as participants/beneficiaries, they are less likely to hold leadership or decision-making positions and are reluctant to influence decisions.

Women's power to influence services, territorial power and political decision-making is relatively low due to women's low level of education and the stereotypical local culture that perceives leadership as inappropriate for women.

For the *fisheries* value chains in Mali and The Gambia, women involved in processing and trade are highly organised, especially fishmongers. Digging and liming ponds and loading agricultural produce are men's businesses. Women are particularly active in the post-harvest sector where they are employed as workers in processing enterprises. They are also strongly present in the fish trade yet are handicapped by a lack of financial capital.

In the *cocoa* value chains, such as Ecuador, although women perform the same tasks as men, their participation is still recognised as secondary "assistance". In Nicaragua, in the country's largest *cocoa* buying-exporting company, the warehouse manager is a woman, a situation that has not always been easy given the context of machismo that prevails among the producers, most of whom are men. There are also women involved in the provision of technical services to production, in cooperatives and in public institutions. In Cameroon, it was observed that 5% of people in the general assembly of the cocoa cooperative were women. Women speak in public when they are invited to do so. In São Tomé and Príncipe, in all associations / cooperatives / companies found, all positions of responsibility are held by men; no female leader was found.

In the *coffee* value chains, the level of organisation of women is quite good. In Angola, women may have the possibility of joining a producers' association, but there are only few female members in such associations and the associations only function symbolically due to political pressures. Women refer to this possibility as a way to access credit 'to plough the fields' (and not for coffee production). In Ecuador, women represent between 20 and 30% of producer members. Their participation in the boards of directors is rather limited. The specialised coffee sub-chains appear to be privileged spaces for promoting women's participation. They have led to the creation of women-only organisations in which women express themselves much more freely than in mixed organisations. In Tanzania the study showed that producers' membership was as important for men as for women.

For the *cotton* in Ethiopia, the weakness of institutional structures supporting women's cooperatives and microfinance institutions, the lack of gender mainstreaming in the planning and implementation of women's support activities, and the low number of women leaders in these institutions are the factors that prevent women from organising. Rural women lack decision-making power and influence in the community, due to the fact that they are not members of economic and social groups and are not comfortable when speaking in public. Also, they have no decision-making power over productive resources. These are the main factors of their disempowerment. As for the cotton in

Cameroon, women are members of cotton producer groups, but also of other VC groups. Their participation is limited to the village level. Two women were on the board of the CNPCC. Women's power to influence services, territorial power and political decision-making is still emerging at a low but growing level. Women speak up in public. Especially if they are not alone, they are quite self-confident, less so if their men are there and more so if they do so with the youth, the other 'discriminated' subgroup among cotton farmers at the village level. A big improvement has been achieved in the last 20-30 years, when it was difficult for women to make their voices heard in village discussions with "outsiders".

In what refers to *food crops*, in terms of leadership and empowerment, in Ghana (*groundnuts*), there are still very few women in farmers' organisations. Although most of the existing groups have at least one woman in a leadership role, overall only 8% of the women members of the groups play a leadership role. For the *sorghum* in Ghana, women can and do belong to groups and unions. The existence of formal groups, unions and associations is low in sorghum VC. At the production stage, smallholder farmers are organised in groups. However, with a few exceptions, they are not very active because it is time consuming and an additional activity to all the tasks they already have. Women can take up leadership positions. Due to cultural norms and constraints, lower levels of education and limited time available for tasks and activities outside the domestic sphere, their frequency of public speaking is low compared to men.

In the *fruit* value chains (Burkina *mango*, Togo *pineapple*, Burundi and Dominican Republic banana), the level of women's involvement in the association remains medium and leadership remains weak. In Burundi 19% of women members of an associative structure hold positions of responsibility in their organisation. In Burkina, the fact that women workers go home with a salary considerably increases their negotiating capacity at household level. In pineapple VC in Togo, women are members of cooperatives, staff unions and other groups or associations. There are pineapple producer groups where there are as many women as men. However, there are very few women presidents of cooperatives. There are also a few women who hold the positions of secretary or treasurer. At the enterprise level, there are not many women in positions of responsibility. Women's influence on services, territorial power and political decision-making is limited. Some women speak freely in public and others are shy or discreet. Burundi is considered a very good example, the majority of women are members of groups, associations, women's or mixed cooperatives. Women represent 1/2 the National Assembly deputies, around 1/2 to the Senate, 1/3 at the communal level and 20% at the hill level.

3.2.5 Hardship of domestic and productive activities and division of labour

Sub-domain 5: To what extent are the overall work loads of men and women equal (including domestic work and child care)? Are risks of women being subject to strenuous work minimised (i.e. using labour-saving technologies...)?

Regarding the overall workload of men and women, the responses show that it is very unequal, with 41.7% saying it is *not at all* equal for all the VC but *aquaculture*, *horticultural products* and *livestock* (placing women at a high risk), while 47.2% referring that the workload ratio is *moderate/low* (Table 15 Annex 3). Regarding to the level of risk reduction, 31% maintain that it is not reduced at all, while for 31% and 36% maintain, respectively that the reduction is moderate and substantial (Table 16 Annex 3). This reduction in women's risk of being subjected to arduous work seems more marked in the *cotton*, *cashew/palm*, and *aquaculture* value chains. The situation is, thus, worse for women in the *fisheries* and *food crops* value chains.

In *aquaculture*, Cambodia, the digging and liming of ponds and the loading of agricultural produce is a male responsibility, although the division of roles is not rigid. In general, women do not perform the most arduous tasks. The situation for female heads of household is different and depends on the extent to which they can afford to hire male

labour or use labour-saving technologies such as digging machines. In Zambia, there is a strong division of labour in rural areas (also in poor urban areas), where women are exclusively involved in domestic and care work, while men are involved in tasks that are supposed to require more physical strength. However, some women are also active in pond construction and other physical activities. Few labour-saving technologies other than shovels or ploughs were identified in the field. Apart from the use of draught power, most agricultural activities in rural areas are carried out with a hand hoe.

In fishing production, Mali and The Gambia, women work more than men and the risk of reducing their drudgery is low, due to the precariousness of the situation, and there is little investment in technological innovations. In Mali the priority for households is to invest in fishing equipment such as gear and canoes. In The Gambia, the conditions for processing fish and transporting catches by women remain difficult activities due to the lack of modernisation of processing techniques.

In the *cocoa* value chains, hard women work is still the norm. In Ecuador, due to traditional gender roles, women's overall workload is higher than men's are, as they are mainly responsible not only for certain income-generating production tasks but also for domestic activities such as cooking, cleaning, laundry and childcare. This results in an unequal distribution of tasks and responsibilities within the household, which means that women work longer hours than men and therefore have less time to participate in recreational, educational or leisure activities. In Cameroon, the in the husband's cocoa field is extra work for the wife. Women do not clear the fields, but they can prune, harvest, also spray, shell, transport. In São Tome and Principe women have much more work than men because, in addition to income-generating work (in the fields, in the post-harvest period), they take on domestic tasks alone (or almost): washing clothes, feeding, cleaning, children, etc.

In the *coffee* VC in Ecuador, the workload between men and women is very unequal. In some areas, it is estimated that women work 14 hours a day, mainly on productive and reproductive tasks, including housework, food preparation and care of children and dependants, which they perform almost exclusively. In Tanzania, women have a heavy workload, taking care of the family and daily household needs, in addition to contributing up to 80% of the labour required for coffee production, as well as other agricultural work. In Honduras there is still an important gender division of labour, in which domestic work and childcare are carried out by women, but they also work in the pruning and cutting of coffee. The heavier work, as well as work in the coffee mills, is done by men. In Angola, men are mainly involved in land preparation and ploughing. Women help by participating in planting, weeding, harvesting and carrying water. They consider digging and all activities involving the use of the pestle to be the most difficult work.

For *cotton* VC (Ethiopia, Cameroon), in Ethiopia, according to the social expert, men try not to overload women in the production stage. The risk of women being subjected to heavy work is minimal because it is taken care of by the men. However, differences between regions, families and ethnic groups can be significant. In Cameroon, in most cases, women have a 14-hour-day, while men have an average of 8-9 hours per day. An exception was found in an area where the cotton fields were far from the house, and where men and women left and returned together from the fields.

As for the *food crop* value chains (Zambia *maize*, Ghana *sorghum*), in the Zambian maize VC, many tasks are gendered, including tasks in smallholder maize production, while domestic work and childcare are mainly done by *women* and children. The data suggest that most paid work in maize production is done by women and youth. There are a number of labour-saving technologies in smallholder maize production that reduce the risk of women being subjected to heavy labour, including soil preparation (oxen and tools), weeding (herbicides and weed killers) and shelling (mechanical shelling

machines). However, these technologies are not accessible to many maize-growing households for reasons of affordability or availability.

In the fruit value chain (Burkina Faso *mango*, Togo *pineapple*, Dominican Republic *banana*) most women who work in factories are responsible for children and household chores. They are responsible for preparing the midday and evening meal for the extended family in most cases. Their work in the mango factories replaces the petty trade activities they usually carry out during the mango season. In the Dominican Republic *banana*, women's workload is generally higher (than men) because of the 'double' or 'triple' burden as a (paid) worker, a domestic worker and carer for family members. For pineapple in Togo, women are practically the only ones involved in domestic work and childcare. They have more workloads than men. Overall, pineapple work (in the field) is considered difficult, even more difficult for women. At the processing level, women generally occupy positions where the work is less strenuous. In Burundi (*banana*), men have slightly more work to do than women in the VC, but women are also involved in domestic work. In the banana plantation, women are involved in ploughing, transporting manure and setting up the reject or the plantation itself.

4. Lessons learnt and discussion

4.1 Unequal division of labor: women daily burden: reduced access to education, meaning lack of autonomy

The general observation, in all value chains, is that one of the constraints to women's economic development is the extent of their working time, especially domestic work combined with agricultural food activities, which prevents them from being fully involved in wage-earning activities or from having full autonomy to carry out their income-generating activities.

This indicator that has the worse score levels, in all reports, should be seen as one of the major constraints for women's achievement. It strongly compromises their possibility to escape discrimination within these countries' rural areas, strongly negatively affecting national gender equality standards.

This excessive female daily workload does not seem to be tending to decline, on the contrary recent studies on the effect of climate change on agricultural resources, have also shown how women's routines (i.e. fuelwood and water collection and transportation) have been adversely affected by increased drought. Since these resources are tending to become scarcer, women are forced to walk greater distances, which reduces their time availability, compromising their agricultural activities and therefore food security in their communities (World Bank, FAO, and IFAD, 2009).

The reports also show how men are generally engaged in income-generating activities that do not only include agricultural tasks, but also waged jobs, commerce and transportation. Compared to women, they are more likely to move from rural to urban areas, and benefit from this change (both economically and culturally) or to migrate to international destinations, in search of better opportunities, increasing women's daily burden since many women are left alone to look for their families.

4.2 Women "time poverty" as a result of their engagement in commercial crops

The women that combine their farm labor with paid work in agricultural commercial (export driven) productions, such as coffee, cocoa, and banana suffer from an even more drastic lack of time that affects their participation in training, decision-making, schooling and income generating activities. This reduced time is described as women 'time poverty'

by the experts (Tanzania *coffee*). This risk (of women subjected to hard work) was also identified in the *pineapple* VC in Benin.

When describing the women working in *mango* plantations, the social experts refer that apart from working in the transformation plant, they are responsible for preparing the midday meal for the extended family, as well as preparing the evening meal (Burkina Faso *mango*). With less autonomy, typically poorly remunerated labor, and an uneven burden of care duties, these Burkinabe women may experience more difficulties to respond to environmental and social pressures, which, in turn, leads to negative impacts on household overall stability and wellbeing. For the social experts that studied the Tanzanian *coffee*, the fact that women are compelled to combine the paid work with their family duties, is a threat to their households' food insecurity, since they experience higher levels of food stress, as well as poorer diets.

4.3 Education and training: key-role in women empowerment

Education, training and information are intangible assets that have a key role to play in women's empowerment and engagement in innovative experiences together with social and cultural capital. Women's power to influence services, territorial power and political decision-making is relatively low due to women's low level of education.

Women domestic burden often starts at a very young age, preventing girls from pursuing education (Guinea Bissau *mango and lime*). Not attending school, "undermines their decent work opportunities, as well as the opportunities to find skilled jobs" (ILO, 2017).

Most of the VCA4D reports mention that women have limited access to skill trainings, formal education, basic conditions for adoption innovative agricultural inputs.

Gender asymmetries in education reinforce, or intensify, gender asymmetries in many supportive key areas that can drive agricultural development towards higher food security and climate change resilience. Information includes market information, information on risks and hazards, legal rights, and skills to use to develop the rights to access markets, improve income, and manage risks (World Bank, FAO, and IFAD, 2009).

Access to education or training is therefore a key driver of women empowerment. The higher the educational level of women, the greater their ability to influence the decision-making process (São Tomé and Príncipe *cocoa*, Ecuador *cocoa*, Cambodia *aquaculture*, Zambia *egg*).

Various studies have also confirmed the positive association between the education of women and children's health outcomes.¹⁰

4.4 Gendered occupations in agriculture and agricultural related activities: women denied access to labor-saving technologies

The VCA4D experts have also observed how occupations in agriculture are gender biased, and how these different roles influence gender power relations. Gendered roles are especially evident at the small farms' household level where more traditional rules are determinant. What is most striking about these reports is that, in general, men have greater access to technologies that alleviate their work burden than women.

¹⁴ Gender Equality and Food Security: Women's Empowerment as a Tool Against Hunger
<https://www.adb.org/sites/default/files/publication/30315/gender-equality-and-food-security.pdf>

In a very recent report produced by CGIAR¹¹, the development and dissemination of technologies - that would reduce women's labor and energy expenditure - is considered one of the three "key ambitions to improve gender equality"¹² (CGIAR Gender, 2021).

More often, women tend to process their crops on the farm using traditional tools. In most of the VCA4D reports, there is few evidence of labor-saving technologies specifically promoted to replace traditionally female tasks. For instance, in Guinea-Bissau a (male) lime producer claimed to prefer the manually-produced-juice by women, to the mechanically produced one (Guinea-Bissau *mango* and *lime*). In Sierra Leone (*cashew*), the experts referred that there is huge scope for new technologies to be applied for the benefit of women who do not have access to them. In Ghana (groundnuts), women are reported to use very rudimentary equipment and technologies for groundnuts processing. The same was observed in the cotton VC in Cameroon where women do not own charts, ploughs and oxen and depend on their husbands' mercy.

However, it is interesting to note that the semi-artisanal processing units, in which the women receive lower wages and only work part-time (Mali *cashew*), were considered by the social expert, to be advantageous for women, as it makes it possible to minimize the impact of salaried work on their domestic occupation.

4.5 Men own cattle, women own sheep, goats and chicken

The livestock and layer sector are also described as being "gendered". According to most countries' local social norms, cattle is a male activity. Men are more likely than women, to own large livestock, (the same with farm equipment, bicycles and motor vehicles) (Zambia *egg*).

In Zimbabwe men give higher importance to livestock fattening, whereas women give higher importance to milk quality: men own the animal while women control milk production (Zimbabwe *beef*).

In various countries, livestock extension services are focused on men's cattle to the detriment of women' goats and chicken, acquired through the sale of the production of their individual plots (Zimbabwe *beef*, Mali *cashew*, eSwatini *beef*). Although women's involvement in cattle production is increasing for a number of reasons (such as feminization of agriculture), yet it is still limited by traditional role expectations.

In the eggs' production sector, women traditionally own and manage most of the village chickens, and in the production of table eggs some roles tend to be dominated by one gender. For example, many of the tasks in the VC (milling, grain transport and marketing, feed production, egg production) involve heavy lifting, and for this reason a number of the larger employers have an unofficial policy of employing men for these tasks and women for tasks that require more dexterity and attention to detail (egg collection, sorting, caring for pre-laying birds from day old, finance and recording) (Zambia *egg*).

4.6 Growing feminization of some agricultural practices: higher agency

Since, men's resources are increasingly becoming inadequate for the family needs, due to the growing decline of their economic participation (migration, diseases, internal conflicts), women's contribution to the household's income has been increasing. It has been found that this, in turn, significantly increases women's authority (Nigeria *maize*, Ecuador *coffee*, Dominican Republic *banana*) not because it has been recognized to them, but because it is the natural consequence of that situation. Or as Djoudi and Brockhaus put it, "it was economic distress following increased outmigration of men,

¹¹ An international partnership of agriculture and environment research institutions.

¹² These are two: a gender-equitable control over productive assets and resources; and women's (and youth's) equitable participation in decision-making.

rather than more inclusive social norms, that contributed to women's entrance into the male-dominated sectors" (Lyon et al.2010, Djoudi and Brockhaus 2011) (CGIAR GENDER Platform 2021: 152).

According to VCA4D social experts, women's increasing authority is supported by two key factors: information and organization. In some countries, social analysts reported that the women's affiliation with organizations had given them access to training, which allowed them to market their products without having to resort to middlemen, thus stabilizing their income (Ecuador *coffee*, Burkina Faso *mango*).

4.7 Women land ownership: a way of closing the gender gap

In all of the VCA4D reports, women's restricted access to land ownership is considered as a factor that negatively impacts the most on their autonomy in all the spheres of their lives. Land ownership should thus be taken as an intrinsic human value (Cely-Santos and Hernandez, 2021).

The fact that rural women lack ownership of important agricultural assets puts them at a very disadvantaged situation.

In many of the partner countries studied in VCA4D analyses, positive law grants the same land ownership rights to women as to men, but the customary law still in force in most countries disadvantages the control and management of land by women.

Equal legal rights in what land is concerned, means women denial of legal provisions, such as land registration, management of spousal property, inheritance, customary law and women's representation in institutions of land governance (FAO, 2021).

Access to land as well as to other productive resources is thus strongly related to social visibility and status.

The origin of the access to land discrimination lies in sociocultural norms that, in many cases, define the community inheritance conditions, most of the time against women's rights. With regard to land, women usually enjoy only land use rights, mediated through a man relative¹³ (Angola *coffee*, Nicaragua *cocoa*, Guinea-Bissau *lime and mango*, Ghana *sorghum*, Ethiopia *cotton*, Mali *cashew*).

When women own land, they typically own smaller plots.

Women agricultural holders¹⁴ are not present at consultations with investors; and when they are present, they have no voice (Sierra Leone *cashew and palm oil*, Guinea-Bissau *lime mango*). Also, the land women own is usually reported as being of poorer quality (Tanzania *coffee*). Or as the experts put it, "women never own their fields, especially when they are profitable" (Cameroon *cocoa*).

4.8 Limited access to land means women limited access to credit and training

The lack of land, together with a lower level of human and social capital, decreases women's eligibility for formal credit to acquire agricultural inputs and hired labor (Dominican Republic *banana*, Zambia *maize*, Zimbabwe *beef*, Ghana *sorghum*, Ethiopia

¹³ These so-called gender subjectivities and "different lived experiences" (Gengenbach et al. 2017) are considered to be more useful for analyzing women's participation than the notion of "closing the gender gap".

¹⁴ According to FAO Gender and Land Statistics, the **agricultural holder** is the civil or juridical person who makes the major decisions regarding resource use and exercises management control over the agricultural holding. The agricultural holder has technical and economic responsibility for the holding.

cotton, Angola *coffee*); reinforcing their unequal social status (Mali *fisheries*, Burkina Faso *mango*, Burundi *banana*).

There are very few sources of credit available for people living in the areas, where customary land tenure operates, which affects negatively women's access to credit (Zambia *maize*, Sierra Leone *cashew and palm oil*).

The lack of land property rights also affects women's limited access to financial services due to the requirements requested by financial institutions (title deeds, guarantor, payment records) (Ecuador *coffee*, Honduras *coffee*, Sao Tomé and Príncipe *cocoa*). Women are less likely than men to receive subsidized inputs, because they are less likely to belong to cooperatives, which are generally male dominated in terms of leadership and membership (Zambia *maize*, Benin *pineapple*). Evidence thus suggests that strengthening women's land rights can significantly increase their social recognition and income and families' welfare.

4.9 Women's lack of mobility has negative impacts on their decision-making

Most leadership positions are occupied by men, meaning that most relevant public decisions are addressed by men (reported by almost all VCs).

Among the reasons that prevent women from being engaged in organizations or business is their lack of mobility.

Limited mobility also hinders women from selling their produce in the markets beyond the village boundaries; since there is more competition in town markets and they are not able to supply good quality products and cannot carry enough quantities. In Nigeria *maize* women would need to cross that threshold to be able to have their own businesses. Even when women are engaged in the local trade of processed food products such as maize, the majority of traders are men. It is very difficult for them to enter large markets (Nigeria *maize*). The same happens in Kenya *green beans* where transporting beans to the collection point is predominantly done by men. This means that men receive the payment whereas women take responsibility for the majority of the production process (green beans Kenya).

4.10 Women marital status: single women, polygamy and widowhood

As a result of male national and international migration flows, several reports refer that women that are involved in the VC activities are single and heads of households (Angola *coffee*, São Tomé and Príncipe *cocoa*, Nicaragua *cocoa*).

These women, totally or partially abandoned by their husbands or widows, are being left to carry the full burdens of agricultural production, but often with no legal protection or rights to property ownership (World Bank, FAO, and IFAD, 2009).

The VCA4D report on the coffee VC in Angola describes a situation of total women dependency, close to slavery (civil war widows being used as unpaid labor force after being brought from the streets to the plantation by a producer who took care of them).

Single motherhood may also be caused by men's polygamous behavior (not always legal or culturally accepted). Polygamy and widowhood may be related. Although the country's legislation may prohibit polygamy, it is likely to become an issue in case of civil war, and the number of widowed women consequently will be likely to increase (FAO - Gender and Land Rights Database, 2010) (Angola *coffee*, Sierra Leone *cashew*). The fact that about one-third of men have polygamous relationships adds to the complexity of the access to land and other resources for women (Sierra Leone *cashew*). Women's participation in decision-making processes mainly "depends on how the woman is

considered by the man as well as on his status (monogamous or polygamous)” (Benin *pineapple*)

Marital status also influences decision-making within households. Single women that are heads of households are autonomous in the organization of their work, being largely self-sufficient and in complete control of how they use their income (São Tome and Principe *cocoa*, Nicaragua *cocoa*, Nigeria *maize*). Although married women can use income, their control over the sale of produce is limited and depends on men’s supervision (most VCs).

4.11 The effects of the expansion of commercial agriculture on women’s autonomy – men’s crops vs. women’s crops

The expansion of commercial agriculture has created new markets and the demand for agricultural commodities, especially for higher-value export products. These changes could create greater opportunities for women in terms of wage and salaried labor, but the situation is complex. Insecure contracts, long working hours, poor pay, and a lack of social protection characterizes’ rural women employment (ILO, 2017; CGIAR GENDER Platform 2021:151).

Most VCA4D experts report that in large-scale productions, the access to markets is still limited to women that are not visible at the decision-making level, but they are very active as salaried workers carrying out mechanized/ routinized operations such as packaging and processing (Dominican Republic *processed fruits*, Dominican Republic *banana*, Cameroon *cocoa*).

Coffee production is an interesting paradigm illustrating how women tend to be increasingly engaged in a traditionally “men-considered-crop” (Tanzania *coffee*, Ecuador *coffee*¹⁵); yet their increased participation has not been translated into enhanced legal, political, and social status. It is men who inherit and own the land on which the vast majority of the coffee is grown. Men are responsible for marketing the coffee produced and receiving the money earned from its sale. Men are more likely to have a bank account, be active members of farmers’ groups, head of the household, and have the greatest influence over how the money is applied (Ecuador *coffee*, Tanzania *coffee*, Angola *coffee*). Some experts report that the lack of transparency related to the sharing of the production incomes, in the coffee sector, may lead to conflict within the household. In Tanzania, women complained of men taking the proceeds from coffee sale and using much of it for drinking and in some cases for taking other women (Tanzania *coffee*).

4.12 Women successful engagement in food production: women’s crops

Women tend to be engaged in food productions rather than in cash crops. This is very much related to their responsibility of ensuring the food security of their household. Also, food products that have been less subjected to prices fluctuation due to liberal markets’ speculation, and are, therefore, more reliable.

The social experts of the vanilla VC in Papua New Guinea, refer that women generally have much greater control over decisions relating to food crop gardens (and betel nuts) than to cash crop productions (such as cocoa or coffee). A good example is the cassava, in Côte d’Ivoire, where women are fully engaged. They are even described as being the main value chain actors. The processing and marketing of cassava are their preferred domain (Côte d’Ivoire *cassava*). In Ghana, as in the rest of West Africa, groundnut (a highly caloric product that can be easily stored and kept for periods of food shortage) is

¹⁵ That is nevertheless not the case of the coffee VC in Angola where most of the producers are smallholders and processors are men-owned companies.

termed the “women's crop” due to the major roles women play in its production, processing and trading, According to the social experts “it offers a lesson in enhancing women empowerment”. Since women cultivate their own plot, do their own processing and engage in trading activities on their own, they have considerable control over incomes earned. The social experts also refer to the fact that groundnuts provide self-esteem, and financial independence to women” (Ghana *groundnut*).

Even if the men's interest in these cultures is becoming more and more significant, it is important to note that women are in the majority in all the segments of these food value chain (production, processing, and marketing) (Côte d'Ivoire *cassava*). Also, women who engage in petty trade on the fringes of the VC activities are more autonomous (Benin *fruits*).

The social experts have, nevertheless, reported that investors are more reluctant to give access to credit for food crops (Côte d'Ivoire *cassava*). For this reason, although some women are investing in new food products sources that are seen as new opportunities for livelihoods and food security, they still face significant uncertainties not having access to subsidies and therefore not being able to compete, in terms of costs and prices, with larger producers (World Bank, FAO, and IFAD, 2009).

4.13 Women control over short value-chains

Most reports describe women not taking part in decision-making on agricultural products, unless they produce the products themselves (Burkina Faso *mango*). This confirms the consideration that “to have positive impacts on women, the menu of goods and services available must include those that are of relevance and interest to women”. (World Bank, FAO, and IFAD, 2009).

Some VCA4D reports recognize women's agency over some VC products. This happens mainly in the case of specialized short value chains in which, women have control over the whole stages of the VC, even if it is a short value chain (i.e. control over lime juice in Guinea-Bissau, cashew processing in Sierra Leone, milk in Kenya, pito brewing in Ghana, neem oil in Cameroon).

In Guinea-Bissau, the lime and its by-products (juice or vinegar) is considered as women's produce. Women participate in all productive activities, process the product and control the local trade. Women are also the intermediaries who buy the limes in the rural areas and sell it in the cities or neighboring countries. Most reports refer nevertheless that the income generated by the women is mainly applied at the household to supplement family income such as school education and children's needs (Guinea Bissau *lime and mango*, Zambia *maize*).

There are also good examples of women having successful engagement in specialized commercial productions, such as the case of specialty coffee of Ecuador (Ecuador *coffee*). This specialized coffee, considered to be owned by women, have led to the creation of women-only organizations to facilitate the access of women to the commercial sector. Specialty coffee sub-chains are considered by the VCA4D researchers as privileged spaces to promote women's participation (Ecuador *coffee*).

Also in the coffee sector, women may be empowered by investing in coffee shops, making important inroads in the national markets (Honduras *coffee*). Or becoming more present in administrative positions and managerial positions, especially in the producers' cooperatives (Honduras *coffee*).

In Kenya women have good access to green beans' production extension services and input suppliers. However, this does not mean that they have control over these interactions. Decisions about farm production are often made by men. The same happens in other value chains where women may have control over the production, but

the final say, and decisions, are taken by the men (green beans Kenya, sorghum Ghana). The social expert that studied cotton VC in Cameroon has reported how this cash crop is definitively increasing the chances of women to become autonomous and self-confident “at least as long as the man is not requiring her labor on longer time spans”.

4.14 Women increased agency as a result of their engagement in salaried work

There are, however reports that have observed good examples of awareness of gender equality. The *banana* VC in Dominican Republic was reported to offer good working conditions for women but still with lower wage levels than men. However, women's participation in *banana* VC can have apparent gender equality benefits, especially if combined with increased access to resources, decision-making, and empowerment.

In Burkina Faso, the fact that women workers return home with a salary has considerably increased their negotiating capacity at the household level (Burkina Faso *mango*). Other experts do not report balanced gender relations but see with optimism the future of women when the income generated by these emerging agro-industries will be more equally distributed (São Tome and Principe *cacao*, Zimbabwe *beef*).

4.15 Innovation does not reach women nor are they supplied with technologies that do meet their needs

The women access to innovation is very closely related to their access to the innovation-related information (Cambodia *aquaculture*, Nigeria *maize*, Angola *coffee*). Since women are not active participants in decision-making, neither in technological decisions, they are often supplied with technologies that do not meet their needs.

Research and innovation projects are generally meant to technological transfer, few aiming at having more structural and sustainable social and political impacts level.

Some studies about seeds, for instance, show how women value different seeds' qualities, although they are not the ones to decide what seeds to buy/ apply. In the broad context of technology and innovation in agriculture, lower adoption of seed-improved varieties among women reflects unequal access to technology.

Moreover, studies aiming at mitigating the effects of climate change may be faced women's non-compliance when it comes to diversifying their work and building productive assets to deal with droughts and other shocks (Ethiopia *cotton*).

Women's access to innovation has been too much focused on women's access to resources to improve food security. It would be more innovative and inclusive of discussing the changes in access to resources as a way to improve women's wellbeing and ability to decide for their lives.

5. Conclusion

In most countries reported by the VCA4D social experts, national legislation on women's rights (including national policies targeted specifically to women and in some cases through dedicated government bodies) is in place. Yet even where these laws exist, women are, frequently, still not protected because of sociocultural norms impeding law enforcement, combined with their lack of knowledge of their entitlement to these rights (ILO, 2017). However, a lot is still to be done to engage political commitment in broadening the legislation to cover more spheres of women's and girls' lives, and also to ensure that these legal instruments' application is guaranteed.

One reason for poor supervision of the real status of women's rights is the lack of expertise to gather appropriate information in the field. The practitioners lack the tools,

knowledge, and good practices to integrate gender perspectives in their work, especially now that the agriculture sector itself is undergoing profound changes (World Bank, FAO, and IFAD, 2009).

Since gender issues have been tackled autonomously, in the VCA4D model, as part of the social sustainability analysis, in most of the economic and environmental analyses' domains, women's roles and contributions to these specific domains were not assessed by the experts (i.e. when describing labour costs in the economic review or the agricultural practices that most contribute to environmental sustainability in the environmental analysis). In these specific domains, in all the reports, there is, therefore, a gender-neutral approach, when describing the roles and activities performed by the different actors. This contributes to gender gaps in the production of data (FAO, 2021) or the data are not "sex-disaggregated" or "gender-blind" when research methods are used (Prain *et al.* 2000, 23) (quoted in CGIAR GENDER Platform 2021). This hidden gender perspective makes it difficult to understand women's inequality in other areas than the ones predefined for the social analysis' framework in VCA4D. Or as the aforementioned FAO specific report refers "aggregate data may miss out on what works best for both rural women and men".

The majority of the VCA4D studies assessing women decision-making, or empowerment, focus on the production side. Less information exists on female trader and retailer on the challenges they face when the VC is male-dominated, implying greater mobility and many times far from their homes to earn a living.

Also "quality of gender equality outcomes and not only quantity - thus going beyond the averages and disaggregating statistics - is imperative when assessing social-economic and political development that aims to ensure that human development benefits reach everyone" (GAPII :54).

Indeed, from the different reports it is possible to observe a wide range of both women empowering and disempowering trends, driven by factors that operate at different levels. Thus, women's situation is complex and dynamic. It is crucial to identify the empowering drivers as well as those that unexpectedly bring women to a stage of greater dependence and lack of autonomy. It is also important to understand how an apparent backlash in women autonomy may produce transformative change in the long term.

Some good examples regarding the building of new opportunities for women are mentioned in the VCA4D reports: i.e. women leading short yet highly valued value-chains such as specialized coffee in Ecuador; or women building strong social networks within their communities by selling lime products in Guinea-Bissau; or any other factor that has the potential to reduce women unequal situation and simultaneously reducing their own and their households' poverty.

Gender-specific climate change risk assessments, violence against women and women reproductive (family planning) rights are three factors that greatly influence rural women sustainability. These three factors were not previewed by the VCA4D social profile. A debate on women resilience and contribution to climate change in poor rural areas can be included in the VCA4D frame and is about to start, as the VCA4D environmental analysis hardly includes such gender sensitive indicators. It is more difficult to include women sexual and reproductive health rights as gender equality indicators in the social analysis, as VCA4D is a methodology to deal with value chain analysis and the way actors are in connection to supply markets only for a specific product and we are here far away from the fundamentals of a value chain analysis. Many value chain analysis methodologies do not even address gender equality as VCA4D does in the social analysis. Nevertheless it is up to the VCA4D experts to make recommendations of performing an in-depth assessment of these two aspects if necessary, by using rather livelihood or stakeholder tools instead of VCA, since these two aspects affect closely the educational trajectories of women, therefore their access to knowledge and their

participation in the activities beyond the domestic sphere, allowing for their engagement in innovative and transformative pathways in the perspective of food security.

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7. Annexes

Annex 1: Value chains and their different gender equality scores

| Value Chain/Country | Aquaculture Cambodia | Aquaculture Zambia | Egg Zambia | Cassava Ivory Coast | Mango Burkina Faso | Mango Lima Guinea Bissau (producteurs) | Green Beans Kenya | Palm Oil Sierra Leone | Cashew Sierra Leone | Coffee Honduras | Coffee Tanzania | Beef e Swatini | Beef Zimbabwe | Cocoa Sao Tome | Cocoa PNG | Banana Dominican Republic | Banana Burundi | Vanilla PNG | Processed Fruits Dominican Republic | Pineapple Togo | Cashew Mali | Cotton Cameroon | Cocoa Cameroon | Fisheries The Gambia | Pineapple Benin | Groundnut Ghana | Sorghum Ghana | Fisheries Mali | Coffee Angola | Cotton Ethiopia | Maize Nigeria | Maize Zambia | Cocoa Ecuador | Coffee Ecuador | Aquaculture Georgia | Cocoa Nicaragua | | |
|--|----------------------|--------------------|------------|---------------------|--------------------|--|-------------------|-----------------------|---------------------|-----------------|-----------------|----------------|---------------|----------------|-----------|---------------------------|----------------|-------------|-------------------------------------|----------------|-------------|-----------------|----------------|----------------------|-----------------|-----------------|---------------|----------------|---------------|-----------------|---------------|--------------|---------------|----------------|---------------------|-----------------|---|---|
| 3. GENDER EQUALITY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.1 Economic activities | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.1.1 Are risks of women being excluded from certain segments of the value chain minimised? | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 1 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 4 | 3 | 2 | 1 | 4 | 2 | 4 | 1 | 3 | 1 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| 3.1.2 To what extent are women active in the value chain (as producers, processors, workers, traders...)? | 3 | 2 | 2 | 4 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 2 | 1 | 3 | 2 | 2 | 4 | 2 | 2 | 3 | 3 | 3 | 1 | 3 | 3 | 4 | 3 | 4 | 2 | 3 | 4 | 2 | 2 | 3 | 3 | 2 | 2 | |
| 3.2 Access to resources and services | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.2.1 Do women have ownership of assets (other than land)? | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 4 | 4 | 2 | 2 | 4 | 3 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 2 |
| 3.2.2 Do women have equal land rights as men? | 3 | 2 | 3 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 1 | 3 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 3 | 2 | 1 |
| 3.2.3 Do women have access to credit? | 3 | 1 | 2 | 1 | 1 | 2 | 3 | 2 | 2 | 3 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 3 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 |
| 3.2.4 Do women have access to other services (extension services, inputs...)? | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | |
| 3.3 Decision making | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.3.1 To what extent do women take part in the decisions related to production? | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 1 | 2 | 2 | 3 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 2 | 2 |
| 3.3.2 To what extent are women autonomous in the organisation of their work? | 3 | 2 | 2 | 4 | 2 | 4 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 3 | 3 | 4 | 2 | |
| 3.3.3 Do women have control over income? | 4 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 4 | 2 | 3 | 4 | 1 | 3 | 2 | 2 | 2 | 3 | 1 | 3 | 2 | 4 | 1 | 2 | 2 | 3 | 3 | 2 | 2 | |
| 3.3.4 Do women earn independent income? | 3 | 2 | 2 | 3 | 4 | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 4 | 3 | |
| 3.3.5 Do women take part in decisions on the purchase, sale or transfer of assets? | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 1 | 1 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 4 | 2 | 1 | 3 | 4 | 1 | 2 | 2 | 2 | 4 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | |
| 3.4 Leadership and empowerment | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.4.1 Are women members of groups, trade unions, farmers' organisations? | 2 | 3 | 3 | 4 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 4 | 4 | 3 | 2 | 4 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 2 |
| 3.4.2 Do women have leadership positions within the organisations they are part of? | 2 | 3 | 3 | 4 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | |
| 3.4.3 Do women have the power to influence services, territorial power and policy decision making? | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 3 | 2 | 1 | 2 | 2 | 4 | 2 | 2 | 3 | 2 | 2 | 2 | 1 | |
| 3.4.4 Do women speak in public? | 2 | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 1 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 4 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 4 | 2 | |
| 3.5 Hardship and division of labour | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.5.1 To what extent are the overall work loads of men and women equal (including domestic work and child care)? | 2 | 2 | 2 | 3 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 3 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | |
| 3.5.2 Are risks of women being subject to strenuous work minimised (e.g. using labour saving technologies...)? | 3 | 1 | 3 | 1 | 2 | 1 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 1 | 2 | 3 | 3 | 1 | 1 | 2 | 3 | 3 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 3 | 1 | 2 | 3 | 3 | 3 | 3 | 1 | |

Annexe 2: Scoring by the sub-domains in VCA4D studies

Economic Activities

Table1: Level of risk exclusion of women

| Group of value chaine | 3.1.1 Are risks of women being excluded from certain segments of the value chain minimised? | | | | | Total number of studies |
|------------------------|---|------------|--------------|-------------|------|-------------------------|
| | Not applicable | Not at all | Moderate/low | Substantial | High | |
| Aquaculture | 0 | 0 | 2 | 1 | 0 | 3 |
| Cashew/Palm | 0 | 1 | 0 | 2 | 0 | 3 |
| Cocoa | 0 | 1 | 3 | 1 | 0 | 5 |
| Coffee | 0 | 1 | 1 | 2 | 0 | 4 |
| Cotton | 0 | 0 | 1 | 1 | 0 | 2 |
| Fisheries | 0 | 0 | 0 | 1 | 1 | 2 |
| Food crops | 1 | 1 | 1 | 2 | 1 | 6 |
| Fruits | 0 | 0 | 5 | 0 | 1 | 6 |
| Horticultural products | 0 | 0 | 1 | 1 | 0 | 2 |
| Livestock product | 0 | 0 | 2 | 1 | 0 | 3 |
| Total observations | 1 | 4 | 16 | 12 | 3 | 36 |
| Total % | 2,8% | 11,1% | 44,4% | 33,3% | 8,3% | 100,0% |

Table 2: Level of activity of women in value chains (as producers, processors, workers, traders...)

| Group of value chaine | 3.1.2 To what extent are women active in the value chain (as producers, processors, workers, traders...)? | | | | | Total number of studies |
|------------------------|---|------------|--------------|-------------|-------|-------------------------|
| | Not applicable | Not at all | Moderate/low | Substantial | High | |
| Aquaculture | 0 | 0 | 2 | 1 | 0 | 3 |
| Cashew/Palm | 0 | 0 | 0 | 3 | 0 | 3 |
| Cocoa | 0 | 1 | 2 | 2 | 0 | 5 |
| Coffee | 0 | 0 | 1 | 3 | 0 | 4 |
| Cotton | 0 | 0 | 0 | 2 | 0 | 2 |
| Fisheries | 0 | 0 | 0 | 1 | 1 | 2 |
| Food crops | 0 | 0 | 1 | 1 | 4 | 6 |
| Fruits | 0 | 0 | 2 | 3 | 1 | 6 |
| Horticultural products | 0 | 0 | 1 | 0 | 1 | 2 |
| Livestock product | 0 | 1 | 2 | 0 | 0 | 3 |
| Total observations | 0 | 2 | 11 | 16 | 7 | 36 |
| Total % | 0% | 5,6% | 30,6% | 44,4% | 19,4% | 100,0% |

Access to resources and services

Table 3: Level of women's ownership of assets (other than land)

| Group of value chain | 3.2.1 Do women have ownership of assets (other than land)? | | | | | Total number of studies |
|------------------------|--|------------|--------------|-------------|------|-------------------------|
| | Not applicable | Not at all | Moderate/low | Substantial | High | |
| Aquaculture | 0 | 0 | 2 | 1 | 0 | 3 |
| Cashew/Palm | 0 | 0 | 2 | 0 | 1 | 3 |
| Cocoa | 0 | 0 | 4 | 1 | 0 | 5 |
| Coffee | 0 | 0 | 3 | 1 | 0 | 4 |
| Cotton | 0 | 0 | 2 | 0 | 0 | 2 |
| Fisheries | 0 | 0 | 1 | 0 | 1 | 2 |
| Food crops | 0 | 1 | 3 | 2 | 0 | 6 |
| Fruits | 1 | 0 | 2 | 2 | 1 | 6 |
| Horticultural products | 0 | 0 | 1 | 1 | 0 | 2 |
| Livestock | 0 | 0 | 2 | 1 | 0 | 3 |
| Total observations | 1 | 1 | 22 | 9 | 3 | 36 |
| Total % | 2,8% | 2,8% | 61,1% | 25,0% | 8,3% | 100,0% |

Table 4: Level of women's land rights compared to men

| Group of value chain | 3.2.2 Do women have equal land rights as men? | | | | | Total number of studies |
|------------------------|---|------------|--------------|-------------|------|-------------------------|
| | Not applicable | Not at all | Moderate/low | Substantial | High | |
| Aquaculture | 0 | 0 | 2 | 1 | 0 | 3 |
| Cashew/Palm | 0 | 1 | 2 | 0 | 0 | 3 |
| Cocoa | 0 | 3 | 0 | 1 | 1 | 5 |
| Coffee | 0 | 0 | 3 | 1 | 0 | 4 |
| Cotton | 0 | 1 | 1 | 0 | 0 | 2 |
| Fisheries | 0 | 1 | 0 | 0 | 1 | 2 |
| Food crops | 0 | 3 | 3 | 0 | 0 | 6 |
| Fruits | 0 | 3 | 2 | 0 | 1 | 6 |
| Horticultural products | 0 | 0 | 2 | 0 | 0 | 2 |
| Livestock product | 0 | 1 | 0 | 2 | 0 | 3 |
| Total observations | 0 | 13 | 15 | 5 | 3 | 36 |
| Total % | 0% | 36,1% | 41,7% | 13,9% | 8,3% | 100,0% |

Table 5: Level of women's access to credit

| Group of value chain | 3.2.3 Do women have access to credit? | | | | | Total number of studies |
|------------------------|---------------------------------------|------------|--------------|-------------|------|-------------------------|
| | Not applicable | Not at all | Moderate/low | Substantial | High | |
| Aquaculture | 0 | 1 | 1 | 1 | 0 | 3 |
| Cashew/Palm | 0 | 1 | 2 | 0 | 0 | 3 |
| Cocoa | 0 | 3 | 2 | 0 | 0 | 5 |
| Coffee | 0 | 0 | 3 | 1 | 0 | 4 |
| Cotton | 0 | 0 | 1 | 1 | 0 | 2 |
| Fisheries | 0 | 0 | 2 | 0 | 0 | 2 |
| Food crops | 0 | 2 | 4 | 0 | 0 | 6 |
| Fruits | 1 | 1 | 4 | 0 | 0 | 6 |
| Horticultural products | 0 | 0 | 1 | 1 | 0 | 2 |
| Livestock product | 0 | 2 | 1 | 0 | 0 | 3 |
| Total observations | 1 | 10 | 21 | 4 | 0 | 36 |
| Total % | 2,8% | 27,8% | 58,3% | 11,1% | 0% | 100,0% |

Table 6: Level of women's access to other services

| Group of value chaine | 3.2.4 Do women have access to other services (extension services, inputs...)? | | | | | Total number of studies |
|------------------------|---|------------|--------------|-------------|------|-------------------------|
| | Not applicable | Not at all | Moderate/low | Substantial | High | |
| Aquaculture | 0 | 0 | 3 | 0 | 0 | 3 |
| Cashew/Palm | 0 | 0 | 3 | 0 | 0 | 3 |
| Cocoa | 0 | 0 | 4 | 1 | 0 | 5 |
| Coffee | 0 | 0 | 3 | 1 | 0 | 4 |
| Cotton | 0 | 0 | 2 | 0 | 0 | 2 |
| Fisheries | 0 | 0 | 1 | 1 | 0 | 2 |
| Food crops | 0 | 1 | 3 | 2 | 0 | 6 |
| Fruits | 0 | 0 | 4 | 2 | 0 | 6 |
| Horticultural products | 0 | 0 | 1 | 1 | 0 | 2 |
| Livestock product | 0 | 0 | 2 | 1 | 0 | 3 |
| Total observations | 0 | 1 | 26 | 9 | 0 | 36 |
| Total % | 0% | 2,8% | 72,2% | 25,0% | 0% | 100,0% |

Decision making

Table 7: Level of women's participation in production decisions by value chain

| Group of value chaine | 3.3.1 To what extent do women take part in the decisions related to production? | | | | | Total number of studies |
|------------------------|---|------------|--------------|-------------|------|-------------------------|
| | Not applicable | Not at all | Moderate/low | Substantial | High | |
| Aquaculture | 0 | 0 | 2 | 1 | 0 | 3 |
| Cashew/Palm | 0 | 0 | 2 | 1 | 0 | 3 |
| Cocoa | 0 | 1 | 4 | 0 | 0 | 5 |
| Coffee | 0 | 0 | 3 | 1 | 0 | 4 |
| Cotton | 0 | 0 | 2 | 0 | 0 | 2 |
| Fisheries | 0 | 0 | 2 | 0 | 0 | 2 |
| Food crops | 0 | 1 | 1 | 4 | 0 | 6 |
| Fruits | 1 | 0 | 4 | 1 | 0 | 6 |
| Horticultural products | 0 | 0 | 2 | 0 | 0 | 2 |
| Livestock product | 0 | 0 | 3 | 0 | 0 | 3 |
| Livestock product | 0 | 2 | 1 | 0 | 0 | 3 |
| Total observations | 2 | 17 | 14 | 3 | 0 | 36 |
| Total % | 2,8% | 5,6% | 69,4% | 22,2% | 0% | 100,0% |

Table 8: Level of women's control over income

| Group of value chaine | 3.3.3 Do women have control over income? | | | | | Total number of studies |
|------------------------|--|------------|--------------|-------------|------|-------------------------|
| | Not applicable | Not at all | Moderate/low | Substantial | High | |
| Aquaculture | 0 | 0 | 1 | 1 | 1 | 3 |
| Cashew/Palm | 0 | 1 | 2 | 0 | 0 | 3 |
| Cocoa | 0 | 0 | 5 | 0 | 0 | 5 |
| Coffee | 0 | 0 | 2 | 2 | 0 | 4 |
| Cotton | 0 | 0 | 0 | 1 | 1 | 2 |
| Fisheries | 0 | 0 | 1 | 1 | 0 | 2 |
| Food crops | 0 | 2 | 2 | 1 | 1 | 6 |
| Fruits | 0 | 0 | 2 | 3 | 1 | 6 |
| Horticultural products | 0 | 0 | 2 | 0 | 0 | 2 |
| Livestock product | 0 | 0 | 2 | 1 | 0 | 3 |
| Total observations | 0 | 3 | 19 | 10 | 4 | 36 |
| Total % | 0% | 5,6% | 47,2% | 38,9% | 8,3% | 100,0% |

Table 9: Level of women's to earn independent income

| Group of value chaine | 3.3.4 Do women earn independent income? | | | | | Total number of studies |
|------------------------|---|------------|--------------|-------------|-------|-------------------------|
| | Not applicable | Not at all | Moderate/low | Substantial | High | |
| Aquaculture | 0 | 0 | 1 | 1 | 1 | 3 |
| Cashew/Palm | 0 | 0 | 2 | 0 | 1 | 3 |
| Cocoa | 0 | 0 | 2 | 3 | 0 | 5 |
| Coffee | 0 | 0 | 2 | 2 | 0 | 4 |
| Cotton | 0 | 0 | 1 | 1 | 0 | 2 |
| Fisheries | 0 | 0 | 1 | 1 | 0 | 2 |
| Food crops | 0 | 0 | 3 | 3 | 0 | 6 |
| Fruits | 0 | 0 | 0 | 4 | 2 | 6 |
| Horticultural products | 0 | 0 | 0 | 2 | 0 | 2 |
| Livestock product | 0 | 0 | 2 | 1 | 0 | 3 |
| Total observations | 0 | 0 | 14 | 18 | 4 | 36 |
| Total % | 0% | 0% | 38,9% | 50,0% | 11,1% | 100,0% |

Table 10: Level of women's participation in decisions to buy, sell or dispose of a business

| Group of value chaine | 3.3.5 Do women take part in decisions on the purchase, sale or transfer of assets? | | | | | Total number of studies |
|------------------------|--|------------|--------------|-------------|------|-------------------------|
| | Not applicable | Not at all | Moderate/low | Substantial | High | |
| Aquaculture | 0 | 0 | 2 | 1 | 0 | 3 |
| Cashew/Palm | 0 | 2 | 0 | 0 | 1 | 3 |
| Cocoa | 0 | 1 | 3 | 1 | 0 | 5 |
| Coffee | 0 | 0 | 2 | 2 | 0 | 4 |
| Cotton | 0 | 0 | 1 | 0 | 1 | 2 |
| Fisheries | 0 | 0 | 1 | 1 | 0 | 2 |
| Food crops | 0 | 1 | 4 | 1 | 0 | 6 |
| Fruits | 0 | 0 | 4 | 1 | 1 | 6 |
| Horticultural products | 1 | 0 | 0 | 1 | 0 | 2 |
| Livestock product | 0 | 0 | 2 | 1 | 0 | 3 |
| Total observations | 1 | 4 | 19 | 9 | 3 | 36 |
| Total % | 2,8% | 11,1% | 52,8% | 25,0% | 8,3% | 100,0% |

Leadership and Empowerment

Table 11: Level of women to be member in groups, unions, farmers' organisations

| Group of value chaine | 3.4.1 Are women members of groups, trade unions, farmers' organisations? | | | | | Total number of studies |
|------------------------|--|------------|--------------|-------------|-------|-------------------------|
| | Not applicable | Not at all | Moderate/low | Substantial | High | |
| Aquaculture | 0 | 0 | 1 | 2 | 0 | 3 |
| Cashew/Palm | 0 | 0 | 0 | 2 | 1 | 3 |
| Cocoa | 0 | 0 | 4 | 1 | 0 | 5 |
| Coffee | 0 | 0 | 2 | 2 | 0 | 4 |
| Cotton | 0 | 0 | 1 | 1 | 0 | 2 |
| Fisheries | 0 | 0 | 1 | 0 | 1 | 2 |
| Food crops | 0 | 0 | 4 | 1 | 1 | 6 |
| Fruits | 0 | 0 | 3 | 1 | 2 | 6 |
| Horticultural products | 0 | 0 | 2 | 0 | 0 | 2 |
| Livestock product | 0 | 0 | 2 | 1 | 0 | 3 |
| Total observations | 0 | 0 | 20 | 11 | 5 | 36 |
| Total % | 0% | 0% | 55,6% | 30,6% | 13,9% | 100,0% |

Table 12: Level of occupation of women in leadership positions in the organisations *they are part of*

| Group of value chaine | 3.4.2 Do women have leadership positions within the organisations they are part of? | | | | | Total number of studies |
|------------------------|---|------------|--------------|-------------|------|-------------------------|
| | Not applicable | Not at all | Moderate/low | Substantial | High | |
| Aquaculture | 0 | 0 | 1 | 2 | 0 | 3 |
| Cashew/Palm | 0 | 0 | 3 | 0 | 0 | 3 |
| Cocoa | 0 | 0 | 5 | 0 | 0 | 5 |
| Coffee | 0 | 0 | 4 | 0 | 0 | 4 |
| Cotton | 0 | 0 | 2 | 0 | 0 | 2 |
| Fisheries | 0 | 0 | 1 | 1 | 0 | 2 |
| Food crops | 0 | 0 | 3 | 2 | 1 | 6 |
| Fruits | 1 | 1 | 3 | 0 | 1 | 6 |
| Horticultural products | 0 | 0 | 1 | 1 | 0 | 2 |
| Livestock product | 0 | 0 | 2 | 1 | 0 | 3 |
| Total observations | 1 | 1 | 25 | 7 | 2 | 36 |
| Total % | 2,8% | 2,8% | 69,4% | 19,4% | 5,6% | 100,0% |

Table 13: Level of women's power to influence services, territorial power and political decision-making

| Group of value chaine | 3.4.3 Do women have the power to influence services, territorial power and policy decision making? | | | | | Total number of studies |
|------------------------|--|------------|--------------|-------------|------|-------------------------|
| | Not applicable | Not at all | Moderate/low | Substantial | High | |
| Aquaculture | 0 | 0 | 3 | 0 | 0 | 3 |
| Cashew/Palm | 0 | 1 | 2 | 0 | 0 | 3 |
| Cocoa | 0 | 1 | 4 | 0 | 0 | 5 |
| Coffee | 0 | 0 | 4 | 0 | 0 | 4 |
| Cotton | 0 | 0 | 1 | 0 | 1 | 2 |
| Fisheries | 0 | 0 | 2 | 0 | 0 | 2 |
| Food crops | 0 | 1 | 4 | 1 | 0 | 6 |
| Fruits | 2 | 0 | 3 | 1 | 0 | 6 |
| Horticultural products | 0 | 0 | 1 | 1 | 0 | 2 |
| Livestock product | 0 | 1 | 2 | 0 | 0 | 3 |
| Total observations | 2 | 4 | 26 | 3 | 1 | 36 |
| Total % | 5,6% | 11,1% | 72,2% | 8,3% | 2,8% | 100,0% |

Table 14: Women's level of public speaking

| Group of value chaine | 3.4.4 Do women speak in public? | | | | | Total number of studies |
|------------------------|---------------------------------|------------|--------------|-------------|------|-------------------------|
| | Not applicable | Not at all | Moderate/low | Substantial | High | |
| Aquaculture | 0 | 0 | 1 | 1 | 1 | 3 |
| Cashew/Palm | 0 | 0 | 3 | 0 | 0 | 3 |
| Cocoa | 0 | 1 | 3 | 1 | 0 | 5 |
| Coffee | 0 | 0 | 1 | 3 | 0 | 4 |
| Cotton | 0 | 0 | 0 | 2 | 0 | 2 |
| Fisheries | 0 | 0 | 2 | 0 | 0 | 2 |
| Food crops | 0 | 0 | 5 | 1 | 0 | 6 |
| Fruits | 1 | 0 | 2 | 2 | 1 | 6 |
| Horticultural products | 0 | 0 | 2 | 0 | 0 | 2 |
| Livestock product | 0 | 0 | 1 | 2 | 0 | 3 |
| Total observations | 1 | 1 | 20 | 12 | 2 | 36 |
| Total % | 2,8% | 2,8% | 55,6% | 33,3% | 5,6% | 100,0% |

Hardship/Gender roles and division of labour

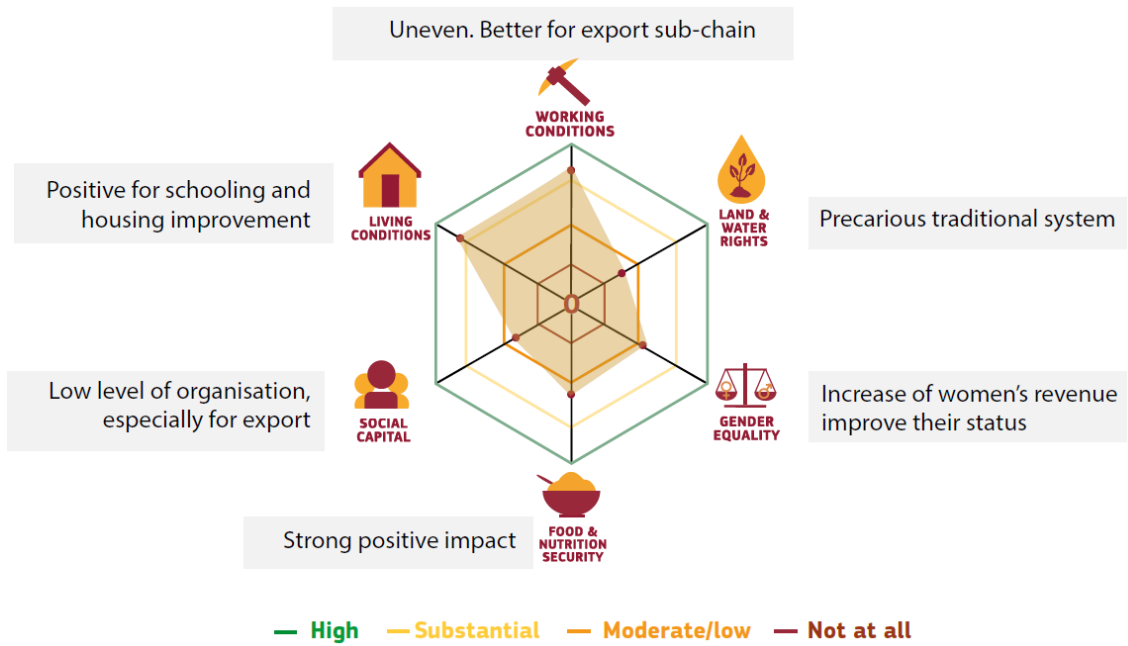
Table 15: Level of equality in the overall workload of men and women (including domestic work and childcare)

| Group of value chaine | 3.5.1 To what extent are the overall work loads of men and women equal (including domestic work and child care)? | | | | | Total number of studies |
|------------------------|--|------------|--------------|-------------|------|-------------------------|
| | Not applicable | Not at all | Moderate/low | Substantial | High | |
| Aquaculture | 0 | 0 | 3 | 0 | 0 | 3 |
| Cashew/Palm | 0 | 1 | 2 | 0 | 0 | 3 |
| Cocoa | 0 | 3 | 2 | 0 | 0 | 5 |
| Coffee | 0 | 1 | 3 | 0 | 0 | 4 |
| Cotton | 0 | 1 | 0 | 1 | 0 | 2 |
| Fisheries | 0 | 2 | 0 | 0 | 0 | 2 |
| Food crops | 0 | 3 | 2 | 1 | 0 | 6 |
| Fruits | 0 | 4 | 2 | 0 | 0 | 6 |
| Horticultural products | 0 | 0 | 2 | 0 | 0 | 2 |
| Livestock product | 1 | 0 | 1 | 1 | 0 | 3 |
| Total observations | 1 | 15 | 17 | 3 | 0 | 36 |
| Total % | 2,8% | 41,7% | 47,2% | 8,3% | 0% | 100,0% |

Table 16: Level of risk reduction women to be subjected to heavy work

| Group of value chaine | 3.5.2 Are risks of women being subject to strenuous work minimised (i.e. using labour saving technologies...)? | | | | | Total number of studies |
|------------------------|--|------------|--------------|-------------|------|-------------------------|
| | Not applicable | Not at all | Moderate/low | Substantial | High | |
| Aquaculture | 0 | 1 | 0 | 2 | 0 | 3 |
| Cashew/Palm | 0 | 0 | 1 | 2 | 0 | 3 |
| Cocoa | 0 | 2 | 2 | 1 | 0 | 5 |
| Coffee | 0 | 1 | 1 | 2 | 0 | 4 |
| Cotton | 0 | 0 | 0 | 2 | 0 | 2 |
| Fisheries | 0 | 1 | 1 | 0 | 0 | 2 |
| Food crops | 0 | 3 | 2 | 1 | 0 | 6 |
| Fruits | 1 | 2 | 2 | 1 | 0 | 6 |
| Horticultural products | 0 | 1 | 0 | 1 | 0 | 2 |
| Livestock product | 0 | 0 | 2 | 1 | 0 | 3 |
| Total observations | 1 | 11 | 11 | 13 | 0 | 36 |
| Total % | 2,8% | 30,6% | 30,6% | 36,1% | 0% | 100,0% |

Annex 3 -The Social Profile Radar: Example of a Mango Value Chain



Annex 4 – Literature review: guidelines, description and references

| GUIDELINES | DESCRIPTION | REFERENCES |
|---|--|---|
| <p>Women in Agriculture</p> | <p>(1) Three out of every four poor people in developing countries live in rural areas, and most of them depend directly or indirectly on agriculture for their livelihoods. In many parts of the world, women are the main farmers or producers, but their roles remain largely unrecognized. [...] it is time to take into account the role of women in agricultural production and to increase concerted efforts to enable women to move beyond production for subsistence and into higher-value, market-oriented production.</p> <p>(1) Agriculture defined broadly as “agriculture, forestry, fisheries, livestock, land and water, agro-industries, and environment,” following the FAO definition. www.fao.org/unfao/bodies/council/cl115/w9751e.htm.</p> <p>(2) All in all, as Whitehead (1990, 36) pointed out, ‘the blanket categorization of sub-Saharan African farming as female also serves to homogenize what is an area of considerable cultural and economic variety’.</p> <p>(2) Who conducted ethnographic fieldwork among the Bakongo of the DRC – considers that there is an association between women, grasslands and the hoe, and between men, forests and the axe.</p> <p>(2) Women-headed households are the ones facing more challenges to make a living out of agriculture</p> | <p>(1) World Bank, FAO, and IFAD, (2009), Gender in Agriculture Sourcebook World Bank: Washington, DC, https://openknowledge.worldbank.org/bitstream/handle/10986/6603/461620PUB0Box3101OFFICIAL0USE0ONLY1.pdf?sequence=1&isAllowed=y</p> <p>(2) Marina Padrão Temudo & Pedro Talhinhos (2019) Dynamics of change in a ‘female farming system’, <i>Mbanza Kongo/Northern Angola</i>, The Journal of Peasant Studies, 46:2, 258-275 - https://www.repository.utl.pt/bitstream/10400.5/23459/1/PTALHINHAS-Dynamics%20of%20change%20in%20a%20female%20farming%20system%20Mbanza%20Kongo%20Northern%20Angola.pdf</p> |
| <p>Women in charge of household and community-management activities (domestic burden), “Time poverty”</p> | <p>(1) In low-income rural regions, traditional roles settle—and many times, reinforce—men as practitioners of productive and political spheres that include agricultural tasks, waged jobs, commerce and transportation. Meanwhile, women undertake reproductive, productive and community-management activities. These activities are associated with the use and conservation of agrobiodiversity family care and nurturing and the strengthening of social safety nets. Women also play a leading and decisive role in the community network, livelihoods and family wellbeing. Women are managers of resources and suppliers of foods, goods plus caring-oriented activities such as education, health and protection. This portrays unequal sharing of risks, profits and benefits from agriculture practices, meaning the women are more vulnerable as rural communities are highly exposed to climate variability. Another barrier for resilience is the lack of women’s rights to access to resources. In 2009 the Committee on the Elimination of Discrimination against Women (CEDAW) expresses its concern about the absence of a gender perspective in the United Nations Framework Convention on Climate Change (UNFCCC) and other global and national policies and initiatives on climate change.</p> <p>(2) Most USAID partner interventions increase women’s already high work burdens. The income generating project is often an addition to her productive work, paid or unpaid outside the household in the so-called ‘public sphere’ in the fields, and her reproductive work in the household or so-called ‘private sphere’, where she is responsible for feeding, clothing, cleaning, and maintaining a family on a daily basis. There are also community demands on women for their voluntary efforts, the ‘traditional’, social and religious demands, which all together take up her entire day from early morning to late at night.</p> | <p>(1) Women-coffee Ethiopia- DESIRA project contract.</p> <p>(2) Women’s Empowerment in Agriculture Assessment Indonesia 2013 https://pdf.usaid.gov/pdf_docs/PA00JNVM.pdf</p> <p>(3) World Bank, FAO, and IFAD, (2009), Gender in Agriculture Sourcebook World Bank: Washington, DC, https://openknowledge.worldbank.org/bitstream/handle/10986/6603/461620PUB0Box3101OFFICIAL0USE0ONLY1.pdf?sequence=1&isAllowed=y</p> <p>(4) Understanding the drivers of rural vulnerability. ILO. 2017. https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_568736.pdf</p> |

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| | <p>(3) Women play a triple role in agricultural households: productive, reproductive, and social. The productive role is performed by both men and women, focuses on economic activities; the reproductive role, almost exclusively done by women, includes child bearing and rearing; household maintenance, including cooking, fetching water, and fuel-wood; and the social role or community building, often dominated by women, which includes arranging funerals, weddings, and social events.</p> <p>(4) This labour division often starts at a very young age. Girls may be involved in domestic work instead of being sent to school, which undermines their potential, lead to lower productivity and reduce their decent work opportunities, as well as the opportunities to find skilled jobs. These factors reduce their independence and possibility of social and economic empowerment.</p> | |
| <p>Women and internal conflicts, post-war situations, rural-urban migrations (widows, single mothers, women head of household)</p> | <p>(1) While colonial interventions reinforced women's role as food producers, the wars acted in the opposite direction by increasing the participation of (non-conscripted into the military) men in agriculture for those who took refuge in the then Republic of Congo. The economic boom that followed the end of the civil war opened income-earning opportunities out of agriculture for young men, but the recent fall in the international oil price reversed this trend, and agriculture – as a sole occupation or combined with casual off-farm jobs – became again a way out of hunger and poverty.</p> <p>(1) Afonja (1981) and Wartena (cited in Bryceson 1995, 15) examined – among Yoruba and Fon groups, respectively – the impact of the slave trade in displacing women from food production into trade and in creating a negative perception of agricultural labour,</p> <p>(1) During the civil war (of Angola) agricultural production was restricted not only by the conditions of insecurity, but also by the malfunctioning of the market. Nevertheless, some Mbanza Kongo inhabitants were able to produce food on the fringes of the city and in their (at that time large) home gardens.</p> | <p>(1) Marina Padrão Temudo & Pedro Talhinas (2019) <i>Dynamics of change in a 'female farming system', Mbanza Kongo/Northern Angola</i>, The Journal of Peasant Studies, 46:2, 258-275 - https://www.repository.utl.pt/bitstream/10400.5/23459/1/PTALHINHAS-Dynamics%20of%20change%20in%20a%20female%20farming%20system%20Mbanza%20Kongo%20Northern%20Angola.pdf</p> |
| <p>Women's restricted access to, control over and ownership of productive resources</p> | <p>(1) Access to land and productive activities, is related to social visibility, status and value. The women's restricted control over productive resources increases their dependence on men to realize a livelihood. With less autonomy, often poorly remunerated labor.</p> <p>(2) Scales of Empowerment: Access to Resources</p> <ol style="list-style-type: none"> 1. Women and men do not have access to the resources needed to improve their production 2. Men have access to resources but do not share it with women 3. Women have limited access to resources but they do not influence decision-making 4. Women make use of resources to make decisions that improve a family's well-being 5. Women and men collaborate in expanding resources that together form the basis for decisions that improve a family's well-being | <p>(1) Marcela Cely-Santos, Olga Lucía Hernández-Manrique <i>Fighting change: Interactive pressures, gender, and livelihood transformations in a contested region of the Colombian Caribbean</i>. Geoforum 125 (2021) 9–24</p> <p>(2) WOMEN'S EMPOWERMENT IN AGRICULTURE ASSESSMENT INDONESIA 2013 https://pdf.usaid.gov/pdf_docs/PA00JNVM.pdf</p> |
| <p>Women's role in specific value chains (women's vs. men's crops)</p> | <p>(1) If women do not own the land, they also do not have access to the products it generates (shea nuts in Burkina Faso).</p> <p>(3) Long value chains, long distances just for men. Few women have means of transport (bicycles, carts) to travel long distances.</p> <p>(4) Gendered tree tenure refers to the fact that men often have ownership and access rights to commercial uses, and to the part of the tree that has a higher commercial value. 0 Meanwhile, women tend to have rights to fodder, fuelwood, fiber, fruits and mulch, and to manage plots with lower tree density. "Pond tenure" in the aquaculture sector is also highly gendered.</p> <p>(4) Due to restrictions on their mobility, women tend to be</p> | <p>(1) Dabat, Marie-Hélène ; Ouedraogo, Djamilaté ; Yoda Françoise et Mahamadou Zongo. <i>Les Femmes Burkinabés face à l'Économie Marchande</i> (unpublished paper).</p> <p>Hovorka, Alice J. <i>Women/chickens vs. men/cattle: Insights on gender-species intersectionality</i>. Geoforum Volume 43, Issue 4, June 2012, Pages 875-884</p> <p>(3) <i>The Way Forward – accelerating gender equity in coffee value chains. A practical guide with recommendations for action</i></p> |

managers of backyard aquaculture ponds. However, they have a more limited role in catch fisheries, as they are often culturally expected to stay close to the shoreline where commercial fishing may not be feasible.

(4) In agriculture, livestock management and agroforestry women have greater difficulty than men in accessing sufficient labour for climate-smart practices.

Men have greater ties to existing social networks, through which they can access productive agricultural labour.

(4) The aquaculture sector is an important exception, where additional labour requirements from backyard ponds are considered minimal, and do not significantly impede CSA adoption. Promoting access to labour through labour markets, family or social networks could be a significant positive influence on women's CSA adoption.

(4) Women make substantial contributions in terms of labour in agroforestry systems, and often disproportionately bear the costs of tree management. Nonetheless, when it comes to receiving the benefits, women only receive a fraction of the total of men's earnings, and their participation in decision-making is generally limited to already degraded tree resources. Indeed, women are generally not equally involved in all aspects of the timber and non-timber value chains, as they work in the least profitable areas. Being the primary cooks, women suffer the most from the exhalations of firewood used for cooking purposes. Moreover, there is evidence that women's participation in agroforestry decision-making is linked to the success of community forestry.

(4) Because of social norms, household decision-making power and their access to credit and assets, men usually own and manage large animals, such as cattle and buffalo, while women are almost always responsible for poultry and small ruminants, such as goats and sheep.

(4) Though women are involved as fishers, and represent half of the workforce of this sector, there still face many constraints and barriers to their full engagement. National statistics are responsible for the significant undercount and undervaluation of women's contributions to the sector, in part because their fishing activities are often undertaken on or close to the shoreline (e.g. gleaning) or are misrepresented as "help". Since they do not often go on bigger boats that can result in larger yields and greater profits, their contribution is consistently undervalued or not paid. While women are highly engaged in all types of fisheries (fish, seaweed, crab and shrimp) they tend to be involved in less profitable components of the value chain, such as post-harvesting work and vending. The lack of access to capital and to the resources required for refrigeration can result in higher losses and lower quality of products among women entrepreneurs, gradually undermining their efforts

(5) The emphasis on power relations affecting women's participation in emergent agricultural networks also contrasts with the ahistorical and radical egalitarian focus of actor network theory which

https://www.coffeeinstitute.org/wp-content/uploads/2015/10/The-Way-Forward_Final-Full-Length-Report_opt.pdf

(4) Good Practices for Integrating Gender Equality and Women's Empowerment in Climate-Smart Agriculture Programmes. Published by the Food and Agriculture Organization of the United Nations and CARE

<https://seepnetwork.org/files/galleries/Good-Practices.pdf>

(5) Heidi Gengenbach et al. 2017. Limits of the New Green Revolution for Africa: Reconceptualising gendered agricultural value chains. Wiley.

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| | <p>“diminishes the importance of subjectivity, intentionality, consciousness, [and] reason” (Chagani, 2014, p. 429). Most importantly, our reconceptualisation of value chains as webs of power relations enables us to explain “who loses and who wins from the constitution of networks” (Jasanoff, 2004, p. 23).</p> <p>(5) Rather than starting with a model in which farmers are considered “value chain takers” rather than “value chain makers”, we advocate a different approach to analysing the potentialities of value chains and their relationship to food security. This approach conceptualises value chains as complex assemblages co-produced by a broad set of actors, including socially differentiated farmers. Gender is a key axis of social differentiation, yet it always operates intersectionally with other sources of differentiation.</p> | |
| <p>Women’s agency, the weight of traditional system</p> | <p>(1)Women’s agency – defined as ‘the ability to make choices and transform these choices into desired outcomes’ (World Bank 2012). Agency is expressed in many ways: control over resources (measured by the ability to earn and control income), ability to move freely, ability to have voice in society and influencing policy, decision over family formation, freedom from the risk of violence, control over one’s future, and the ability to execute plans for personal and professional development (World Bank 2012).</p> <p>(1) A conceptual framework proposed by Perova and Vakis in their 2013 report Improving Gender and Development Outcomes through Agency. The authors identified two aspects or enablers of agency:</p> <ul style="list-style-type: none"> • Internal aspect: The internal motivation to make a choice, the willingness to act upon one’s desires. • External aspect: Measures to overcome exogenous constraints (external, or context-related). <p>Increase women’s economic empowerment especially in countries that already have a high incidence of domestic violence. In turn, these determinants had an effect on three dimensions of gender equality outcomes, as follows:</p> <ul style="list-style-type: none"> • Technical, soft and job training increased women’s educational endowments. • Access to jobs and income, increased women’s economic opportunities, and • A combination of project interventions increased women’s agency, analyzed using Perova and Vakis (2013) framework. <p>Women participants in roads work and rural productive activities reported increased self-esteem, self-efficacy, self-confidence, decision-making capacity, leadership and assertiveness, as a result conquering new skills and know-how, and participating in public spheres of community engagement. The opportunity to venture into new spheres and perform non- traditional work, gave them confidence in their own capacities and helped them envision a better future for themselves (and their families) and take control over their own future. Drivers of changes in agency</p> <p>Key entry points to enhance women’s agency:</p> <ul style="list-style-type: none"> • Non-traditional jobs and income (influence markets, informal institutions, households) economic opportunities, agency • Technical and soft skills, on the job-training (all countries) | <p>(1)World Bank Group. 2014. ROADS TO AGENCY Effects of Enhancing Women’s Participation in Rural Roads Projects on Women’s Agency.A comparative assessment of rural transport projects in Argentina, Nicaragua, and Peru https://documents1.worldbank.org/curated/en/666721468185041902/pdf/99173-WP-P123447-PUBLIC-Box393190B.pdf</p> <p>Recent analytical work on women’s agency include:</p> <p>(i) Ana Maria Munoz Boudet, Patti Petesch, and Carolyn Turk with Angelica Thumala, 2013. On Norms and Agency Conversations about Gender Equality with Women and Men in 20 Countries, World Bank, Washington DC; (ii) Perova, E. and Renos Vakis, 2013. Improving Gender and Development Outcomes through Agency: Policy Lessons from three Peruvian Experiences. Washington DC; and (iii) World Bank, 2014. Voice and Agency: Empowering women and girls for shared prosperity, Washington DC.</p> <p>(2) Heidi Gengenbach et al. 2017. Limits of the New Green Revolution for Africa: Reconceptualising gendered agricultural value chains. Wiley.</p> |

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| | <p>greater endowments, agency;</p> <ul style="list-style-type: none"> • Networking and group formation, e.g. Argentina QCR handicraft associations (informal institutions) <p>agency (greater voice and participation);</p> <ul style="list-style-type: none"> • Opportunity to exercise leadership, e.g. Argentina QCR, Peru MEMV, Nicaragua MCAs) (informal institutions) <p>agency (greater voice and participation).</p> <p>The main questions analyzed in the study were:</p> <ul style="list-style-type: none"> • Enablers and barriers for women’s participation: <p>What have been barriers/constraints and facilitators of involving women into such activities at the individual, household, and community level?</p> <ul style="list-style-type: none"> • Positive and negative effects of women’s participation: What have been potential positive and negative effects of such involvement at the individual, household, and community level ? Agency effects of women’s participation: How have the gender related activities incorporated into the rural transportation project affected agency? Has the inclusion of women in activities that are traditionally carried out by men and the access to income generation led to effects on aspirations and life plans, perceptions of gender roles, decision-making capacity within the household, and decision making capacity, voice and representation outside their household. <p>Enablers and barriers for women’s participation (key concepts)</p> | |
| <p>Women openness to change and innovation</p> | <p>(1)The dynamic nature of livelihoods and their underlying gendered relationships are still unexplored. How do women cope with stress and how much are they open to change. The women unequal division of labour within the family and their unequal access to land, credit and information, limit women’s involvement in agricultural decision-making and their engagement in innovative practices.</p> <p>(2) Migration shows stark gendered differences. In some regions, men more than women are likely to abandon agricultural work at home and migrate first to seek income in other sectors. Women are being left to carry the full burdens of agricultural production, but often with no legal protection or rights to property ownership. Although the changes in agriculture create new sources of opportunities for livelihoods and food security, they also pose significant uncertainties. Equity concerns are being raised. Poor and small producers, often women, may be excluded from the lucrative high-value markets because they may not be able to compete in terms of costs and prices with larger producers.</p> <p>(3) The gender perspective has been structured, using the SLA (Sustainable Livelihoods Approach), to capture the gender inequalities in these four factors. (the fourth is) physical and agroecological risks and their gender-differentiated impacts and vulnerability.</p> <p>(4)Agricultural technology transfer capacity development is one of the prime policy levers to increase agricultural productivity. But often women are not targeted because it is assumed that their husbands or fathers</p> | <p>(1)Marcela Cely-Santos , Olga Lucía Hernández-Manrique Fighting change: Interactive pressures, gender, and livelihood transformations in a contested region of the Colombian Caribbean. <i>Geoforum</i> 125 (2021) 9–24 (2,3 and 4) World Bank, FAO, and IFAD, (2009), <i>Gender in Agriculture Sourcebook</i> World Bank: Washington, DC, https://openknowledge.worldbank.org/bitstream/handle/10986/6603/461620PUB0Box3101OFFICIAL0USE0ONLY1.pdf?sequence=1&isAllowed=y</p> <p>(4) imap://margaridalf@mail.isa.utl.pt:993/fetch%3EUID%3E.INBOX.Sent%3E10502?part=1.2&filename=FAO_2019_Agroecological%20and%20other%20innovative%20approches.pdf&type=application/pdf</p> <p>(5) Marina Padrão Temudo & Pedro Talhinhas (2019) <i>Dynamics of change in a ‘female farming system’, Mbanza Kongo/Northern Angola</i>, <i>The Journal of Peasant Studies</i>, 46:2, 258-275 - https://www.repository.utl.pt/bitstream/10400.5/23459/1/PTALHINHAS-Dynamics%20of%20change%20in%20a%20female%20farming%20system%20Mbanza%20Kongo%20Northern%20Angola.pdf</p> <p>(6) Heidi Gengenbach et al. 2017. <i>Limits of the New Green Revolution for Africa: Reconceptualising gendered agricultural value chains</i>. Wiley.</p> |

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| | <p>will share the knowledge with them, and often they are supplied with technologies that do not meet their needs.</p> <p>(5) Mostly triggered by structural adjustment programmes and other international market policies, processes of ‘depeasantization’ and ‘deagrarianization’ (Bryceson 2002a, 2002b) contributed to dramatically change rural societies, but the gender dimension of these phenomena remains poorly studied.</p> <p>(5) The Angolan agronomist Fernando Pacheco (2014, 89–90) speaks of a process of deagrarianization and feminization of agriculture between 2000 and 2009 linked to rural–urban migration. He goes on to say that the government disregarded the Food and Agriculture Organizations (FAO) advice to support small-holders’ food production – preferring to invest (unsuccessfully) in large-scale projects – and neglected rural areas in relation to the supply of basic goods and the marketing of agricultural surplus production; furthermore, he argues that between 2008 and 2014 there was a drastic reduction in the government’s budget for agriculture (Pacheco 2014, 92–96).</p> <p>(6) The GR4A model includes a multi-faceted push to “mainstream gender” in value chain initiatives. Broadly accepted by the international agricultural development community, this gender focus is unprecedented in ambition and scope and is justified in terms of women’s pivotal role in food provisioning, unequal access to land and credit, and the alleged need for “behaviour change” to bring them into formal markets (cf. Sebstad & Manfre, 2011). In theory, gender objectives should infuse the strategies, actions, and decisions of all participants in value chain initiatives.</p> | |
| <p>Gender and intensive monoculture industrial croplands; cash crops; exportation crops</p> | <p>(1) In response to technological and market trends, diversified farming has been progressively transformed towards industrial croplands with low levels of diversity. This means increased dependence on money and commercial exchanges to meet livelihoods’ needs. Also rural people have increased their participation in income-producing activities, such as paid labor in large-scale plantations.</p> <p>(2) One fact is undeniable: access to resources that would help women to be more successful - such as agricultural training and credit lags far behind that for men. This is despite women carrying out much of the work on coffee farms, including activities that directly impact quality, yields, and the resulting income for the family.</p> <p>(2) By better understanding and meeting the needs of women and amplifying their voices in the industry, in communities and in the household, we will help farmers succeed and we will bolster the health of our industry.</p> <p>(3) The gender gaps in many coffee-growing countries are among the greatest in the world.</p> <p>(4) FAO is committed to ensuring that current processes of growth and commercialisation in the agriculture sector do not lead to further disempowerment of women and girls and contribute instead to the sustainable development of agri-food systems.</p> <p>(5) In rural villages, many men consider that they do not have a job, as being a farmer is not valued as a profession by them (see also Hill 1978, for the case of Ghana).</p> | <p>(2) <i>The way forward. Accelerating Gender Equity in Coffee Value chains, a practical guide with recommendations for action.</i> Coffee Quality Institute. https://www.coffeeinstitute.org/wp-content/uploads/2015/10/The-Way-Forward-Final-Full-Length-Report_opt.pdf</p> <p>(3) United Nations Development Programme, Human Development Reports, Gender Inequality Index, https://hdr.undp.org/en/content/gender-inequality-index-gii</p> <p>(4) Good Practices for Integrating Gender Equality and Women’s Empowerment in Climate Smart Agriculture Programmes https://seepnetwork.org/files/galleries/Good-Practices.pdf</p> <p>(5)] Marina Padrão Temudo & Pedro Talhinhos (2019) <i>Dynamics of change in a ‘female farming system’, Mbanza Kongo/Northern Angola</i>, The Journal of Peasant Studies, 46:2, 258-275 - https://www.repository.utl.pt/bitstream/10400.5/23459/1/PTALHINHAS-Dynamics%20of%20change%20in%20a%20female%20farming%20system%20Mbanza%20Kongo%20Northern%20Angola.pdf</p> |
| <p>Feminization of commercial farming</p> | <p>(1) The number of women farmers is increasing as a consequence of civil conflict in some regions and the out-migration of men in search of higher incomes in others — part of a larger trend toward the feminization of agriculture. Yet, women farmers often cannot market their products as successfully as</p> | <p>(2)) World Bank, FAO, and IFAD, (2009), Gender in Agriculture Sourcebook World Bank: Washington, DC,</p> |

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| | <p>men for a variety of reasons, e.g., little or no freedom to travel away from their homes and dependents; lack of transportation to deliver their crops; limited literacy and business knowledge; an inability to judge the quality of their coffee; and cultural barriers to interacting with purchasing parties. As a result, women may sell to middlemen or others for less than the price they might receive given more market.</p> <p>(2) In areas, where migration and HIV and AIDS are affecting rural demographics, agriculture is becoming feminized as women increasingly become major actors in the sector.</p> <p>(3) Although its impact on agricultural productivity is unclear, increasing feminization of agricultural labor is likely to have deep and wide ranging effects. It may rank as one of the leading foci for AKST policies centered on capacity development of (women) farmers, extension outreach, training in agricultural technologies and women's effective rights to land, trees, water bodies and other assets.</p> | <p>https://openknowledge.worldbank.org/bitstream/handle/10986/6603/461620PUB0Box3101OFFICIALOUSEONLY1.pdf?sequence=1&isAllowed=y</p> <p>(3) East and South Asia and the Pacific (ESAP) Report https://www.weltagrabericht.de/reports/ESAP/ESA_180.html</p> |
| <p>Women role in climate change prevention, diversification of agriculture practices</p> | <p>(1) Climate change effects should be tackled with diversification of solutions. Livelihood diversification is considered a mainstream strategy to cope with change in uncertain environments. Diversification of livelihood activities was a coping strategy to overcome the effects of resource scarcity. Despite segregation by gender, diversification was greatly conducted by women. Diversifying helps households spread the risk of activities with unpredictable outcomes, and access a minimum amount of resources.</p> <p>Women play a key role in the transition for green economy.</p> <p>(2) Climate change may have negative impacts on access to natural resources, which can add a burden for rural women who are often in charge of energy supply, water management and food security.</p> <p>(3) In sub-Saharan Africa, agriculture is an important employment sector for women and as a result, women are highly likely to feel the effects of climate change. (...) In rural South Africa, inconsistent rainfall patterns have been the most notable manifestation of climate change. Inconsistent rainfall and excessive heat affect subsistence agriculture, which poses a direct threat to food security. (...)</p> <p>(4) Women are often excluded from key decision-making mechanisms on climate change that seek to find viable adaptation strategies. This is seen as an act that further perpetuates the vulnerability of already marginalised groups in society.</p> <p>(5) In order to address food insecurity, the New Green Revolution for Africa (GR4A) promotes tighter integration of African smallholder farmers, especially women, into formal markets via value chains to improve farmers' input access and to encourage the sale of crop surpluses. Recognizing that women are the majority of Africa's smallholder farmers, GR4A proponents have foregrounded women as key players in this agrarian transformation. Research stressing that high rates of maternal and child malnutrition jeopardise poor countries' capacity for economic growth has further pushed some GR4A advocates to scrutinise links between agriculture and nutritional well-being (Gomez et al., 2013). Accordingly, "closing the gender gap" and "unleashing women's potential" in agriculture are now understood as critical elements in solving Africa's "hunger problem" (BMGF, 2012; USAID, 2010).</p> | <p>(1) CEDAW, 44th session New York, 20 July – 7 August 2009 Statement of the CEDAW Committee on Gender and Climate Change https://www2.ohchr.org/english/bodies/cedaw/docs/Gender_and_climate_change.pdf</p> <p>European Commission: Questions and Answers on new rules for deforestation-free products https://ec.europa.eu/commission/presscorner/detail/en/qanda_21_5919</p> <p>(2) Understanding the drivers of rural vulnerability. ILO. 2017. https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_568736.pdf</p> <p>(3) https://www.tandfonline.com/doi/abs/10.1080/09614524.2021.1937542?journalCode=cdip20</p> <p>(4) Good Practices for Integrating Gender Equality and Women's Empowerment in Climate Smart Agriculture Programmes https://seepnetwork.org/files/galleries/Good-Practices.pdf</p> <p>(5) Heidi Gengenbach et al. 2017. Limits of the New Green Revolution for Africa: Reconceptualising gendered agricultural value chains. Wiley.</p> |

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| <p>Women and governance</p> | <p>(1) Unequal power relations, discrimination, gender-based violence, inequitable laws and customary practices further exacerbate women’s vulnerability. (...)Women are often not protected by national legislation, and even where laws to secure their access to productive resources exist, women are frequently still not protected because of sociocultural norms impeding law enforcement and because of their lack of knowledge of their entitlements.</p> <p>(2) women will remain largely information-starved and neglected by service providers and development interventions unless their differing needs, preferences and constraints are adequately identified and addressed right from the design of CSA programmes and policy-making</p> | <p>(1) Understanding the drivers of rural vulnerability. ILO. 2017. https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_568736.pdf</p> <p>(2) Good Practices for Integrating Gender Equality and Women’s Empowerment in Climate Smart Agriculture Programmes https://seepnetwork.org/files/galleries/Good-Practices.pdf</p> |
| <p>Gender subjectivities</p> | <p>(1) We find the concepts of “gender subjectivities” and “different lived experiences” to be more useful than the notion of “closing the gender gap” for analysing women’s participation in GR4A projects.</p> | <p>(1) Heidi Gengenbach et al. 2017. Limits of the New Green Revolution for Africa: Reconceptualising gendered agricultural value chains.</p> |
| <p>Domestic violence against women</p> | <p>In the reports there are few references about domestic violence against women but there are nevertheless some.</p> | |
| <p>Addressing gender in rural value chains diagnosis, monitoring and reporting (a critical approach)</p> | <p>(1) There is a hidden masculine normativity in the descriptions of the agriculture sector and the actors of its value chains. They are not identified per gender since it is taken for granted that roles such and transporting, processing, marketing are done by men. This gender normativity is apparent in the VCA4D reports and makes it difficult to understand women’s inequality in other areas than the ones defined in social analysis.</p> <p>(2) One of the often-cited reasons for inadequately addressing gender is that practitioners lack the tools, know-how, and good practices to integrate gender perspectives in their work, especially now that the sector itself is undergoing profound changes.</p> <p>(3) For some men, food production is a last resource, a coping strategy to face the lack of non-farm jobs. For others, though, agriculture is now perceived as a way to go forward and improve one’s wellbeing – it is a ‘project’.</p> <p>(4) Each set of actors brings distinct interests and imperatives to bear. Buyers may be concerned about quality standards set by agroprocessors, retailer pricing practices, and/or consumer preferences. Local government officials may respond to the national ministry imperatives. Extension workers and scientists may prioritise the deployment of particular seed varieties. In all cases, gender assumptions structure the knowledge on which these priorities rest and direct decision-making in ways that may alter gender dynamics on the ground.</p> <p>(1) Why aren’t women reproductive rights considered in VCA4D analysis? (1) The legislation is far better than the real situation of women in the different VCs.</p> | <p>(1) Me.</p> <p>(2) World Bank, FAO, and IFAD, (2009), Gender in Agriculture Sourcebook World Bank: Washington, DC, https://openknowledge.worldbank.org/bitstream/handle/10986/6603/461620PUB0Box3101OFFICIAL0USE0ONLY1.pdf?sequence=1&isAllowed=y</p> <p>(3) Marina Temudo & Pedro Palhinhas 2019 (idem)</p> <p>(2) (4) Heidi Gengenbach et al. 2017. Limits of the New Green Revolution for Africa: Reconceptualising gendered agricultural value chains. Wiley.</p> |