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CGIAR Research Program on Grain Legumes
Gender Strategy
Summary

In the Grain Legumes Program there are three main types of gender activity:

1) **Strategic gender research** aims to identify targets for intervention that will have a gender specific outcome.

2) **Gender analytical research** – this analyses the impact of gender on the outputs of the CRP and in related areas.

3) **Gender actions** – these are steps taken within the CRP to attend to internal gender issues.

Our research approach is three pronged:

i) knowledge generation, mostly through strategic gender research, which will be used for strengthening relevance and targeting;

ii) gender disaggregated data and analysis (integrated within the Product Lines, ensuring integration/mainstreaming of gender wherever relevant)

iii) capacity building.

The Gender Strategies of Grain Legumes are closely allied to those of Dryland Cereals; both programs are led by ICRISAT. Our gender strategy is largely established and has been discussed with reference to the report “Assessment of the Status of Gender Mainstreaming in CGIAR Research Programs”. This document highlights the fact that strategic gender research is being conducted around critical gender issues and is aimed at strengthening the relevance and targeting of Grain Legumes research for development and enhancing impacts. Strategic gender research outputs will inform priority setting in other areas of research by identifying gender-related constraints faced by women and the opportunities for women along the value chain. This includes technology access and adoption, preferences and the identification of aspects of technology design needed for research to be responsive to gender differences in adoption or the distribution of benefits from new legume technology.

The gender mainstreaming activities are strengthened by each Product Line having gender goals and outcomes specifically targeted to address equitable inclusion of women along the entire value chain.

With regard to gender actions recognise a deficiency in gender balance within the Research Management Committee as initially established; this will be addressed in discussion with the Steering Committee.

Overall the vision of successful implementation of this gender strategy is that women will have greater access to, and improved ability to take advantage of, the new technologies and market opportunities generated by this Research Program. This should also decrease the drudgery in grain legume production and processing especially for women and should improve household food and nutritional security and income. Our vision is that men and women will be equal beneficiaries of, and contributors to development, involved in participatory decision-making at all stages of the research for development program in the CGIAR Research Program Grain Legumes.
1. Rationale

1.1 Introduction

Gender equity in Agricultural development:
Social inequality determined by factors such as age, race, gender, ethnicity and social status influence development outcomes. The most marginal individuals and groups can have disadvantaged access to and control of assets (productive resources, income, skills, and information), limited capability to voice their needs and constraints, participate in decision-making and benefit from new opportunities. Social inequities may reduce effectiveness of development interventions by influencing the way interventions are implemented and how benefits are shared among various stakeholders. Gender is one of the most common determinants of inequity and it intersects other socio-economic factors that account for differences in communities. Society places multiples roles on women that can affect implementation designs, as well as the success and impacts of development initiatives. Indeed, in agricultural enterprises, women have multiple roles where they are cultivators, laborers, processors, traders, and entrepreneurs and yet have limited access to and control of production assets. In sub-Saharan Africa, women represent 70% and 80% of workers and food processors respectively, contributing immensely to this sector (Wakhungu, 2010). Thus improving the role and position of women in any enterprise, especially agriculture and rural transformation in general, is critical for productivity increase, development efficiency and impact (Ogunlela and Mukhtar, 2009; UNDP 2010; Kanbur and Spence, 2010). Thus gender equity has a strategic role in promoting economic growth and equitable poverty reduction, and is akin to successful implementation and development impacts of the CGIAR Research Programs.

Leveraging gender equity in legume research and development (R&D):
Legumes are generally considered as women’s crops because of their relatively greater contribution in production and marketing of legume vegetable products, seed and cottage industry food processing (Kumar 1985; FAO 2007). In well-developed legume value chains such as soybean, women are increasingly involved in soybean processing, producing food products such as, akara (fried fritter), dan dawa, moin-moin (soybread), soycake, soy-milk and soy-cheese (FAO 2007). However, men dominate in the marketing of legume grain by integrating production and marketing aspects especially in the few highly commercialized production contexts such as common bean in the central rift valley of Ethiopia and the lowlands of northern Tanzania (Bationo et al. 2011). In Asia, women integrate the production, processing and marketing activities of chickpea, lentil, groundnut and pigeon pea. The gender division of labor in Asia appears to be changing in response to rural to urban migration of men, with women assuming many tasks previously performed by men. In order to enhance development effectiveness, it is essential to address gender equity to assure equitable access to benefits of R&D to everyone (Meinzen-Dick et al., 2010). Within CGIAR institutions and allied partners, the significance of gender equity in the light of the barriers faced by women farmers is recognized stimulating inclusion of gender issues in legume R&D. For example, CIAT for many years hosted the Participatory Research and Gender Analysis (PRGA) Program, and its work on beans over the last decade strongly focused on empowering rural women to manage their natural resources and access to markets. Today, many breeding programs engage women and men through participatory plant breeding and variety selection to develop well adapted and farmer preferred varieties much faster. In CIAT, the participation of women in bean breeding led to a faster identification and adoption of new varieties suited to different niches of Rwanda (Sperling et al. 1993). Other gender related efforts implemented include gender characterization, improvement of policy, community development projects and capacity building among partners. Building capacity included but was not limited to training, changing of research approaches to be multi-disciplinary,
and engaging other players such as gender experts in research. Use of gender analysis tools has also been growing across centers, but with some variations in intensity and frequency.

1.2 Gender-differentiated constraints in legume production, processing and marketing
Increasing legume production, a group of crop plants with multiple benefits to humans and the environment, is conceivably strategic to strengthen livelihood strategies of the rural communities especially women and children and other marginalized groups. However, the existing gender disparities in agriculture are compounded by social norms and inequalities that limit ability of women to engage in farm production on equal terms with men. Women are denied land rights, agricultural inputs and technologies, agricultural finance and market support, as well as other production assets such as training, extension and management diminishing their productivity potential (Kumar 1985). Moreover, men often take over women’s enterprises after they become profitable or after improvement in soil fertility following cultivation of legumes by women farmers, men take over the land to grow high value crops. Limited access to credit is disproportionately higher among women because they lack control over land usually demanded as collateral. For instance in Africa, women receive less than 10% of the credit to smallholder farmers and only 1% of the total credit to agriculture (ILO, 2009). The general increase in the number of female headed households in developing countries over the years, with one out of every five farms being headed by a woman and women comprising about 40% of the agricultural labor force increases the need to address gender parity (FAO, 2011). These female headed households are disadvantaged by insecure property rights, shortage of adult labor, inequitable opportunities for asset accumulation and income generation; placing these women and their households, among the most vulnerable segments of the rural poor (Deere & Doss, 2006; Quisumbing et al., 2001; Deere & Leon, 2001).

Furthermore, grain legumes, major crops under women’s cultivation have received less policy support than other crops, creating competitive pressures that have shifted their cultivation to less productive environments. This in turn affects both crop productivity and economic benefits to women farmers, with many studies reporting lower productivity of women farmers compared to their male counterparts for various crops (Quisumbing, 1996; Peterman, Quisumbing and Behrman, 2010). However meta-analysis of data on productivity of women farmers drawn from 27 country studies confirm that women are just as productive and efficient as men and would achieve the same yields if they had equal access to land, technology, credit, extension services and other productive (Kumase et al., 2008; Horrel and Krishnan, 2009). According to FAO (2011), a concerted effort to tackle gender differences in agriculture could increase agricultural output in the developing countries by 2.5–4 percent on average and lift an estimated 100 million people out of poverty, if women farmers had the same access to resources as their male counterparts.

1.3 Gaps in research and development practice
Across the regions of sub-Saharan Africa and South Asia, the civil society discourse on globalization has indicated that economic growth has produced both winners and losers among the poor, and women constitute a significant majority of such losers. Therefore, one of the tasks set by development assistance is to contain and halt the process of creating losers and promote gender responsive and women inclusive development (ICRISAT, 2011). However, gaps still exist and gender differences in many stages of the research for development (R4D). A major gap in the R4D process is the disproportionate involvement of more men than women in agricultural innovation.

Grain Legumes recognizes this fundamental issue and aspires to intensify engagement of women and men in a manner that will support efficient and effective research with a corresponding
development impact. A number of factors account for the disproportionately higher number of male farmers in agricultural innovation such as unfavorable socio-cultural norms and practices as well as gender differences in technology choices (Kolli and Bantilan 1997). Moreover, intensifying R4D efforts on action that deliver particular benefits to women has received limited effort. Yet investments in such action can have immense benefits. In the former Dry Grain Pulses CRSP, targeted value chain research on cowpea identified cowpea flour as a critical bottleneck in the sustainability of women’s small-scale enterprise in the post-harvest preparation and sale of products such as moin-moin in Nigeria (Lowenberg-DeBoer and Ibro 2008, Bernsten et al. 2009; Mazur et al. 2009). Many countries and R4D projects are increasing their efforts to invest in promising agricultural value chains, as in Kenya (Value Chain Finance Center, 2009), Nigeria (Hartwich et al. 2010) and Malawi (USAID’s Feed the Future). However, what is still not clear and needs more understanding is how gender relations condition male and female time allocation across value chains and what factors enable women to get more control over their time and to bargain for a share of any additional income their labor helps generate.

The CRP Grain Legumes recognizes that women have accumulated a wealth of legume specific knowledge and expertise that should be tapped in legume research and development. Lessons learnt from previous legume interventions and elsewhere also indicate that positive and negative gender-specific impacts are possible, and if not monitored and addressed in a timely fashion, could undermine the ultimate goal of improving socio-economic welfare of the poor. In summary, positive benefits such as fast cooking as in the case of bean varieties in Tanzania reduced the workload on women in terms of time spent in search of firewood, cooking, and foraging for wild vegetables during the dry seasons (David and Sperling 1999), and general consumption of annual firewood reduced by about 10% (Nkonya et al. 1998). The negative impacts of the new technologies such as increased workload on women by adopting the productivity enhancement technologies such as soil improvement, appropriate plant population and incorporation of green manure alongside varieties were observed. In other communities, new high yielding varieties have attracted more men into production, with both antagonistic and competitive consequences, depending on the context. The adoption of new groundnut varieties for example increased production and household incomes, but also increased the workload for women during shelling of the increased produce (Feldstien 1998). These and other examples indicate that overall gender-specific effects can be negative or positive especially on women, depending on the gender relations that influence outcomes. These examples clearly point out the importance of incorporating gender research and analysis, and other gender-related issues at all levels of planning and interventions that will steer efforts towards achieving reduced gender disparities and increased gender-equitable impacts. Overall, CGIAR Research Programme on Grain Legumes is cognizant of the crosscutting nature of gender and its significant to legume R4D. Thus gender will be integrated in each Product Line where it will be targeted by a systematic consideration of gender disparities with respect to each Strategic Component with the intended outcome that constraints and opportunities addressed by CRP Grain Legumes will contribute to the promotion of gender equality in agricultural development in general.

1.4 Targeting
1.4.1 Target crops
The CGIAR Research Program Grain Legumes focuses on eight legume crops that are the most important to the smallholder farmers in the low income food deficit countries (LIFD) of Asia, Sub-Saharan Africa and, Latin America and the Caribbean. These legume crops are chickpea, common bean, cowpea, faba bean, groundnut, lentil, pigeonpea and soybean. These legume crops were selected based on their planted area in the target regions and their potential to confront climate
change. The other additional factors such as poverty, hunger and malnutrition (i.e., number of poor living on less than US$2 per day) in a region were used to finalize the crop selection and the regions. By using two core factors, a matrix was constructed indicating a high/medium/low level of poverty versus high/low areas of production (Figure 1).

**Figure 1.** Grain legumes production area and regional poverty matrix [2012 figures for target countries listed in 1.4.2] *(non-priority grain legumes in italic).*

Areas for various crops are given in Mha and are color coded according region and the number of people earning less than $2 (US) per day. For soybean the areas in India and Brazil are in a lighter shade as much of this is not traditional smallholder agriculture.

Notes: SSEA: South and Southeast Asia; SSA: Sub-Saharan Africa; CWANA: Central and West Asia and North Africa; LAC: Latin America and the Caribbean; Figures for each crop are area of production (Mha)
Number of Poor (<US$2 per day) – World Bank, http://iresearch.worldbank.org/PovcalNet/index.htm
(*) Soybean figures are dominated by Brazil (24.9 Mha) and India (10.8 Mha)
1.4.2 Target regions/countries

Based on the analyses of crop harvest area and poverty, the crop-wise target regions are as follows:

- **South and Southeast Asia (SSEA)**
  - Chickpea, groundnut, pigeonpea, lentil

- **Sub-Saharan Africa (SSA)**
  - Groundnut, cowpea, common bean, soybean, faba bean, pigeonpea

- **Central and Western Asia and North Africa (CWANA)**
  - Chickpea, lentil

- **Latin America and the Caribbean (LAC)**
  - Common bean

The Grain Legumes research for development framework targets the overall development, delivery, performance and impact of eight Product Lines (PL)\(^1\) through five Strategic Components (SC)\(^2\). The countries have been selected based on ability and requirements to participate in each of the Strategic Components in the Product Line. Therefore, the specific target countries in the regions differ between the PLs and under each SC. Key research partner countries, where an active research program will be conducted, are indicated under SC2. Additional countries are indicated under SC3 and SC4 based on the opportunities to involve these countries more in the evaluation and dissemination components. Finally, all countries will be considered under SC1 for data gathering and priority setting, and will have options to participate in and access the knowledge sharing and capacity programs under SC5. Grain Legume resources will be highest for those countries involved in SC2, with more reliance on in-country and third-party resources for participation in the other SCs.

The list of the countries under each of the target regions is:

- **SSEA:** Bangladesh, India, Myanmar, Nepal, Pakistan
- **SSA:** Burkina Faso, Burundi, Cameroon, DR Congo, Ethiopia, Kenya, Malawi, Mali, Mozambique, Niger, Nigeria, Rwanda, Senegal, Tanzania, Uganda, Zambia, Zimbabwe
- **CWANA:** Egypt, Iran, Morocco, Syria, Turkey
- **LAC:** Brazil, Colombia, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Puerto Rico

Initial emphasis on some of these crops and/or regions may change during the program and as funding priorities shift to other legumes and regions. A major task of the CRP Research Management Committee, with input from the Independent Advisory Committee, will be the continual assessment of crop and region priorities. This will be aided by initial research activity of Grain Legumes in gathering additional data for all targeted countries (in partnership with the CRP on Policies, Institutions and Markets).

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1. PL 1. Drought and low-phosphorus tolerant common bean, cowpea and soybean
   PL 2. Heat-tolerant chickpea, common bean, faba bean and lentil
   PL 3. Short-duration, drought tolerant and aflatoxin-free groundnut
   PL 4. High nitrogen-fixing chickpea, common bean, faba bean and soybean
   PL 5. Insect-smart chickpea, cowpea, and pigeonpea production systems
   PL 6. Extra-early chickpea and lentil varieties
   PL 7. Herbicide-tolerant, machine-harvestable chickpea, faba bean and lentil varieties
   PL 8. Pigeonpea hybrid and management practices

2. SC 1. Analyzing demand and setting research priorities
   SC 2. Developing productive varieties and management practices
   SC 3. Facilitating legume seed and technology delivery systems
   SC 4. Enhancing post-harvest processing and market opportunities
   SC 5. Fostering innovation and managing knowledge
1.4.3 Target Groups
The target group is small holder farmers – bulk of them being women. Although a detailed typology of these farmers has not been made, these farmers will range from subsistence, semi-subsistence, to smallholder market oriented farmers. A gap here is that these are major typologies which means that there will be differential needs, opportunities, constraints, etc., amongst the groups (and of course the regions). Therefore, one of the major research activities will be to gather information on the different typologies and the gender divisions of labor and decision-making in these typologies need to be examined, to improve targeting in a systematic way the different kinds of women and men and the gender relations that condition technology choice and adoption, and how benefits are shared.

1.5 Expected Outcomes
The vision of the CRP on Grain Legumes is to deliver R4D gains that contribute significantly to reducing poverty, hunger, malnutrition and environmental degradation for poor smallholder families, particularly women, in the developing world. Since women play a prominent role in the cultivation, processing and preparation of grain legumes, improving their access to and use of legume based innovations and knowledge is critical for improving their wellbeing significantly. The framework to do so includes this gender strategy that, together with our biophysical and agronomic technology development, will provide enormous opportunities for reducing gender gap and inequalities while enhancing sensitivity to and knowledge of women’s work and economic contributions in research, development, extension and enterprise by mainstreaming gender in the various strategic components and in capacity development programs. The strategic gender research will inform other areas of research of the gender-related constraints and opportunities faced by women along the value chain including technology access and adoption and, their preferences while the gender mainstreaming activities will ensure increase in the direct participation of women in technology testing. Overall the vision of success of the implementation of the gender strategy is greater access to and improved ability to take advantage of new technologies and market opportunities by women, decreased drudgery for women in grain legume production and processing, improved household food and nutritional security and income, and for men and women to be equal beneficiaries of, and contributors to development, involved in participatory decision-making at all stages of research for development.

2. Goal and Objectives
2.1 Approach to gender research
The Program approaches gender research as a cross cutting thematic area in which analysis is used
(a) To strengthen the relevance and targeting of legume research for development for enhanced impacts and
(b) To inform and deepen the relevance of other research themes under all Product Lines and Strategic Components.

As a crosscutting issue, gender will be integrated in each Product Line and Strategic Component at all stages of the project cycle by systematically considering and addressing gender disparities, constraints and opportunities in legumes R&D and contribute to the promotion of gender equality in agricultural development in general. The CGIAR Research Programme on Grain Legumes takes the approach that the main goals of generating or improving technology are to increase women’s employment opportunities, income and efficiency, or to decrease drudgery, as well as provide both social and gender-based equity, and enable farm women to participate equally in decision-making processes (Satyavathi et al. 2010). This
gender strategy will provide for examination of the dynamics of women’s participation in the entire R4D process and document whether key technologies developed are (or are not) benefitting women to the degree expected, particularly in terms of drudgery reduction, nutrition, and income. Through this strategy program will conduct joint socio-economic studies (as and when needed) with other CRPs (especially the system CRPs A4NH and Policies, Institutions and Markets) during the first phase to analyze specific contributions of men and women to socio-economic processes of legume cultivation and processing, differential access to and control over resources, and the rewards they gain from these contributions in the target production contexts. Such gender analysis will generate a deeper understanding of the gender issues, and strategic gender interests for change in the division of labor, access and control of assets (resources and benefits), constraints, and opportunities for their full participation in the production pathways as well as post-harvest value addition processes upstream. The results will inform the development of strategies to address gender inequalities in access to and control over resources and services. Other pro-active approaches will be adopted when necessary, to target interventions and ensure gender-equal outcomes.

2.2 Goal
The gender responsive goal of this strategy is to promote greater access to and improve ability of women to benefit from sustainable new productivity enhancing innovations and market opportunities that decrease drudgery, improve household food, and nutritional security and income, allow equitable access to benefits, contribution to development and, involvement in decision-making at all stages of R4D by men and women. Specific aims are:

- an enhanced role of women in the production of grain legumes
- increased benefits for women, men and children in terms of income, nutrition, food security
- reduced gender inequality by empowering and targeting women with knowledge and special technologies along the value chain
- market access designed to provide new opportunities that will enable women to catch up with men and reduce the inequality gap between men and women.
- Enhance nutritional benefits of legume consumption for women and children

2.3 Objectives
2.3.1 Strategic gender research objectives
To improve the relevance and targeting of legumes R4D investments for enhanced impacts. This objective aims at improving understanding of what is necessary to change the division of labor, access and control of assets (resources and benefits) in the production pathway of grain legumes.

*Indicative activities*

Studies will be undertaken to:
1. Investigate how key technologies developed by various R4D teams benefit, or not benefit, women farmers, agricultural entrepreneurs and allied stakeholders.
2. Identify constraints, and opportunities for women’s full participation in the production pathways as well as post-harvest value addition processes upstream.

2.3.2 Objectives of gender analysis integrated into Product Line development
To inform and deepen the gender relevance of all Product Lines and Strategic Components.
The CGIAR Research Programme on Grain legumes has 5 Strategic Components (SC) that are processes that foster agricultural innovation and knowledge management through eight product lines. The eight PLs either address persistent challenges to grain legume production and strive to advance unrealized potentials and opportunities. In this objective the Strategy aims at ensuring that
innovation processes being conducted under SC2 on variety breeding and management practices; are informed on gender research imperatives (SC1); in order to support more equitable access to and benefits of innovations by all farmers (SC3); while reducing drudgery of processing and increasing marketing opportunities and their benefits to all especially women (SC 4); and fostering the capture and use of gender sensitive and relevant innovation processes and knowledge management (SC5).

Indicative activities
The following gender specific activities will be undertaken:
Support development of gender sensitive tools that improves:
1. Variety selection in order to improve breeding of new crop varieties that promote empowerment of women and improve their livelihoods
2. Identification of traits that directly benefit women farmers nutritionally and or improve their labor use efficiency such as reduced drudgery and competitiveness from the field to processing and marketing for diverse legume value chains.
3. Formal and informal seed systems for ensuring adequate quality seed supply, particularly to women and increase their control.
4. Engagement of national and regional policy makers for supportive seed policies for easy access by women.
5. Enhancement of grain legume value chains for the poor, especially women.
6. Enhancement of women’s income from marketing of grain legumes as vegetables and value added products.
7. Identification and piloting of institutional innovations to engage poor farmers, especially women, with input and product markets.

2.4 Research Questions to guide strategy implementation
2.4.1 Strategic gender research for improvement of the relevance and targeting of legumes
1. What are women and men’s roles and contributions in legume cultivation and processing?
2. Who (women or men) are the knowledge holders in these value chains?
3. What are benefits/rewards that they gain from their contributions? Are they equitable to their contributions?
4. What gender differences exist in the access to and control over resources required for legume production chain?
5. What are the constraints and opportunities for smallholder women’s increased participation in the legume value chains?
6. What are the social and gender differentiated impacts of current and emerging value chain related technologies?
7. How are some of the key technologies developed impacting women in terms of drudgery reduction, nutrition and income?
8. What kinds of market arrangements allow women to engage profitably in value chains with greater control of income and opportunities for saving and asset control?
9. What strategies and mechanisms (at macro, meso and micro levels) are most effective to support and enable poor women and men realise the upgraded efficiencies in the value chains?
2.4.2 Integrated gender research questions to inform and deepen the gender relevance of all PLs

1. What are the women specific uses and trait preferences related to abiotic stress, biotic stress and climate change effects?
2. What are the local knowledge/practices of men and women on managing these stresses?
3. What technologies and inputs do they have access to and control over for doing their work?
4. How do women access (quality) seed? What are their sources?
5. What are the various seed networks and systems that men and women have? What are the opportunities and constraints in these?
6. What are the tasks/roles of men and women in post-harvest processing? What technologies do they have for this task(s)?
7. What are the market channels used predominantly by women and what are the opportunities and constraints in these?
8. What adjustments to conventional value chain analysis are required to delineate the roles of and benefits received by the poor, especially women?
9. Which high-profit processes in grain legume value chains are appropriate for increased women’s involvement through specific institutional (formal or informal) mechanisms, and how these contribute to Grain Legumes priority setting processes?

3. Theory of change, impact pathways, and partnerships

3.1 Theory of Change

In line with the Grain Legume program’s goal and impact, the Gender Strategy theory of change is based on increasing women’s benefit from production, marketing and consumption of legumes that will increase their incomes and reduce rural poverty, increase food security, improve nutrition, and reduce the gender inequality gap.

Regional and ethnic domains differ significantly for gender roles. While men tend to dominate cereal production in many societies, women are more likely to take a major role in the growing of legumes. Hence, adopting the value chains for legume crops can have significant gender effects, where women will play a central role as actors and suppliers of services to support the legume value chain. Ensuring women capture a fair share of profits will create opportunities for increased and empowered participation of women in the value chains. The gender research will accelerate the adoption of improved technologies and innovations along the legume value chain by increasing their relevance to women and men farmers’ preferences and needs and also by improving access, availability and affordability of quality seed, particularly to women.

Identification, involvement and training of women extension agents will enhance communication with women clients, while focused group meetings and workshops will ensure that gender mainstreaming is internalized by partners. Gender sensitive participatory techniques applied at the community level will promote appreciation and understanding of the importance of gender roles, and thus help communities develop strategies to enhance their livelihoods through increased participation of women.

Joint gender analysis with CRP Policies, Institutions and Markets will help in identifying the specific nature of support (and where it will be needed) for women as equal participants in seed production and delivery systems. Along with this, deliberate support that will be extended to women to undertake decentralized seed production/supply enterprises of improved varieties in hard-to-reach areas where farmer-to-farmer seed exchange and market grain/seed acquisition are still the most
prevalent seed supply channels and are being carried out by women, in order to enhance women’s participation (Bishaw and van Gastel 2008).

Involvement of farmers, both women and men, in participatory varietal selection (PVS) will facilitate the selection of improved varieties that fit in their field growing conditions and socio-economic environments. Women’s participation in PVS will particularly lead to selection of improved varieties with quality traits that will respond to their particular needs, and will inform researchers of their priorities.

Strengthening and linking of formal and informal seed systems, and focusing on women’s contribution, will pave the way for women obtaining better access to, and increased control over, quality seeds. Since women generally carry out weeding and harvesting, interventions to make these activities less arduous will particularly benefit them in various ways. Implementation of small-scale mechanization at the farm level will result in saving valuable time for the farm households, particularly for women. The small-scale mechanization will not only allow timely operations, but also increase the profitability of growing a crop by reducing production costs, and further, lead to the development of new legume products and markets. The improved post-harvest and processing technologies along with linkages to markets will significantly enhance women’s incomes.

It is expected that increased participation of women, enabled by access to suitable technologies and capacity building in the value chain fostered by the CRP would result in their increased involvement in higher level economic activities like marketing, managing end-product enterprises and decision making.

Access to information along with empowerment and capacity building activities amongst women farmers will lead to enhanced local capacity to manage production of crop as well as value-added end-product enterprises, improved household nutrition, and decision making.

3.2 Impact Pathway
Implementing the Strategy is expected to meet its goals through (a) the knowledge and evidence generated from the strategic gender research, and (b) applying gender and development analysis, methods and tools in each of the Product Lines and Strategic Components.

Dissemination, communication and utilization of the gender research outputs will lead to the integration, mainstreaming and standardization of gender sensitive practices and gender issues in the agricultural research for development community working with these crops. This would in turn lead to the development of a range of technologies and interventions in grain legume production that are not only gender sensitive but some of which are also targeted to women. These technological outputs, along with capacity building and empowerment activities will be disseminated through partners with specific gender interests as well as standard extension channels.

This knowledge gap would then translate into a researchable question and would be reflected in a research output. For example, the research could provide evidence-based recommendations to development practitioners on different types of gender relations and suggest which ones require introduction of the technology to be accompanied by women’s empowerment interventions to assure a fair share of benefits flow to women as well as to men.
3.3 Partnerships

Impacts of agricultural research and development involve a multitude of partners, institutions and other external factors. The Grain Legume programs’ theory of change expects its research outputs to contribute to the outcomes and impacts through a dynamic and interactive engagement within and among a cross-section of key stakeholders. Thus, partnerships and networking are crucial to CRP Grain Legumes which will partner with

(i) national agricultural research systems (NARS) in the target countries in ESA, WCA, SSEA, CWANA and LAC
(ii) regional research for development networks
(iii) advanced research institutes (ARI) in both developed and developing countries
(iv) private sector R&D institutions and companies
(v) non-governmental organizations (NGOs) and farmers’ organizations

for the co-development and use of its key knowledge, technologies and capacity building outputs targeted to smallholder women and men. It is proposed to engage the commitment of partners along the research continuum to act on gender-specific client needs, and to develop technology options with benefits to the entire farm family. It is this process that will enhance the uptake process and finally lead to the impacts.
CRP Activities
1. Investigate how key technologies developed by various R4D teams benefit, or not benefit, women
2. Identify constraints, and opportunities for women’s participation
3. Gender sensitive tools for:
   • Variety selection in order to breed varieties that promote women empowerment and livelihoods
   • Identification of traits that directly benefit women nutritionally and or improve their labour use efficiency and competitiveness.
   • Formal and informal seed systems for ensuring adequate quality seed supply.
   • Engagement of national and regional policy makers for supportive seed policies for easy access by women.
   • Enhancement of grain legume value chains for the poor, especially women.
   • Identification and piloting of institutional innovations to engage poor farmers,

Outputs
1. Identification / development of women friendly technologies and crop management practices.
2. Strategies for targeting of women in the relevant trainings and traits developed
3. Better strategies for integrating gender needs in development of crop management options
4. Gender responsive crop management options to optimize productivity in smallholder farmer fields
5. More and improved germplasm, methods, cultivars as per women’s preferred traits
6. Better and more accessible seed systems and strategies for women through decentralized seed system.
7. Efficient post-harvest practices/technologies and value added products and processes benefiting women identified/developed

Outcomes

Scientists and Partners
3. Use results to set up gender sensitive and based priorities
4. Integrate gender needs in development of crop management options
5. Incorporate specific traits that are important for users, particularly women
6. Enhance knowledge of, sensitivity to, recognition and adoption of gender inclusive seed systems,
7. Integrate gender needs in development of post-harvest technologies.
8. Technologies targeted to women available for further evaluation and

Longer-Term

1. Reduced drudgery and work burden
2. Skills, varieties, crop management & post-harvest technologies options effectively adopted by women and men farmers
3. More effective and efficient seed production systems, including farmer-based seed production and marketing enterprises especially benefitting women
4. Improved nutrition
5. Increased incomes

Ultimate Impacts
1. Better health and nutrition for women and children, increases their productivity and incomes
2. Women’s empowerment and reduction in the inequality between men and women supported equitable poverty reduction and increase in income
### CRP gender strategy outputs to impacts

<table>
<thead>
<tr>
<th>Gender research product</th>
<th>Research Outputs</th>
<th>Research Outcomes</th>
<th>Indicators</th>
<th>Development Outcome</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reports and papers with evidence of impacts of key technologies on women.</td>
<td>Identification / development of women friendly technologies and crop management practices.</td>
<td>Priority settings for R4D are established based on gender disaggregated results</td>
<td>Breeders incorporate specific traits that are important for users, particularly women (e.g. mechanically harvestable legumes, herbicide tolerant varieties, etc.)</td>
<td>Equitable/ increased access of women and men farmers to improved germplasm</td>
<td>Better health and nutrition for women and children, increase in incomes, women’s empowerment and reduction in the inequality between men and women IDO2 Income IDO3 Nutrition &amp; Health</td>
</tr>
<tr>
<td>Reports, policy briefs with evidence on constraints and opportunities for women’s full participation in the legumes production pathways.</td>
<td>Strategies for targeting of women in the relevant trainings and traits developed</td>
<td>Crop management options are developed based on gender disaggregated needs</td>
<td>Technologies targeted to women available for further evaluation and development.</td>
<td>Increased household food security that leads to better nutrition and health for women</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adoption of participatory action research and gender analysis skills for priority settings</td>
<td>Percentage of women engaged in trainings on processing technologies tending to 50%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Manuals and publications showing integrated R4D methodologies</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CGIAR Research Program on Grain Legumes

Gender Strategy
<table>
<thead>
<tr>
<th>Gender research product</th>
<th>Research Outputs</th>
<th>Research Outcomes</th>
<th>Indicators</th>
<th>Development Outcome</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reports/information for crop management scientists, methods &amp; tools for identifying</td>
<td>Better strategies for integrating gender needs in development of crop management</td>
<td>Gender responsive crop management options to optimize productivity in smallholder</td>
<td></td>
<td></td>
<td>Food security increased for both women and men; increased production for home consumption; improved profitability with lower production costs, and gender equity. IDO1 Food Security IDO2 Income IDO4 Productivity</td>
</tr>
<tr>
<td>constraints and preferences of men and women farmers for alternative management</td>
<td>options</td>
<td>farmer fields.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>options to improve productivity and improve returns to labor, especially for women.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reports for different legume production systems on the analysis of gender disaggregated</td>
<td>More and improved germplasm, genes, methods, cultivars as per women’s preferred</td>
<td></td>
<td></td>
<td></td>
<td>Increased yield, improved health, particularly of women and children through better nutrition, food security, increased income for men and women farmers. IDO1 Food Security IDO3 Nutrition &amp; Health IDO4 Productivity</td>
</tr>
<tr>
<td>preferences for different varietal traits and trait trade-offs</td>
<td>traits</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
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</tr>
<tr>
<td>Gender research product</td>
<td>Research Outputs</td>
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<td>Impact</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------------</td>
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<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Report based on a comparative study of gender roles and relations in seed systems with different degrees of decentralization, with evidence and recommendations for seed system researchers, extension and policy makers on strategies for improved seed production and marketing to increase benefits (in terms of control and income) for women</td>
<td>Better and more accessible seed systems and strategies for women through decentralized seed system</td>
<td></td>
<td></td>
<td>More effective and efficient seed production systems, including farmer-based seed production and marketing enterprises, especially benefitting women</td>
<td>Increased income for women and men farmers, food security, women’s empowerment IDO1 Food Security IDO2 Income</td>
</tr>
<tr>
<td>Reports provided to post-harvest researchers on opportunities to benefit women from the design of new postharvest technologies</td>
<td>Efficient post-harvest practices/technologies and value added products and processes benefitting women identified/developed</td>
<td></td>
<td></td>
<td></td>
<td>More women farmers equipped with better post-harvest technologies; Less drudgery, especially for women; higher returns of women’s labor and farm productivity</td>
</tr>
</tbody>
</table>
Some examples of unique and non-traditional partnerships along the grain legume value chain processes are given below:
The partners of this CRP will explore linkages with postharvest researchers/experts and small-scale machine manufacturers involving farmers’ cooperatives, SHGs, NGOs, etc., in order to identify and ensure the adoption of appropriate, cost effective farm machinery with focus on reducing drudgery of women.

To ensure the adoption of new technologies and market linkages by farmers, especially women, partnerships with entities involved in the small-scale mechanization manufacture and transport of inputs, collective action of women, NGOs and community-based organizations such as women’s self-help groups, commodity exchange enterprises, local government and private sector partners (traders and exporters), postharvest processors and wholesalers, retailers, entrepreneurs and others that influence value chains.

Many NGOs with a specific interest in gender are small and local in their reach, but we will explore the possibility of developing model platforms that unite and establish communication among these. To enhance the market potential and income benefits for women through innovations in dry seed processing, linkages of farmer cooperatives will be established with grain processors and exporters, the international grain legumes trading associations.

The participating organizations will play a key role in engaging with the governments in order to influence favorable market policies to promote marketability of grain legumes and their products. Specialized extension units that focus on women will be sought, for example, extensionists in home economics.

The CRP will also partner and work with gender experts to develop tools to guide implementers on ‘how to mainstream gender in the legume research for development thematic priorities’. For gender equality and advocacy at a wider community, the CRP will partner with relevant gender interest groups to support advocacy for establishment of formal gender equality where this does not exist and help bridge any gap between the formal situation and the actual enjoyment of equal rights and well-being.

4. Activities
The gender research strategy will be two-fold (Kauck et al. 2010): gender analysis will be integrated as a cross-cutting issue for all Product Line and Strategic Component activities; while strategic gender research on the dynamics of women’s participation along the grain legume value chain and the impacts of key technologies will be examined to document whether key technologies developed are (or are not) benefitting women to the degree expected. The activities will broadly fall into three categories: (1) Gender-disaggregated data and knowledge; (2) technology development; and (3) capacity building. Gender-disaggregated data and knowledge will be explicitly gathered and utilized in all the Product Lines, to fully understand the differential roles of men and women in order to better guide the research-for-development priorities. Technologies will be developed with two major aims: to unleash higher income-earning opportunities for women, and to reduce women’s drudgery cultivation, post-harvest and processing operations. Capacity strengthening activities will proactively seek and include women in equitable numbers.
4.1 Integration of gender analysis across the research cycle in product lines

Gender-sensitive approaches and gender analysis will be applied throughout the research continuum - the design, validation, implementation and evaluation - of the CRP. Social and gender analysis will be integrated to both understand the specific needs and tasks of women and men in grain legumes value chain, and to strengthen the capacity of the most marginalized groups to articulate their views and participate effectively in the research and development process. Gender analyses will improve understanding of gender roles along the entire value chain and gender-disaggregated data will inform the future directions of the CRP. Therefore, as a crosscutting issue, gender will be integrated a way that contributes to each of the Product Lines and Strategic Components and at all stages of the project cycle. The Product Line Leaders will take the lead in ensuring this integration under their respective Product Lines. They will call upon the Management Team and the gender specialist(s) for practical implementation of this integration. Pro-active approaches will be adopted when necessary, to target interventions and ensure gender-equal outcomes. There will be periodic learning, review and change workshops for knowledge sharing about gender constraints and strategies used across Product Line teams.

Empirical gender analysis will be integrated into the CRP SC research using the following range of methods and tools:

4.1.1 Gender specific studies:
In order to further analyse gender preferences of crop traits some gender specific studies will be designed in collaboration with Policies, Institutions and Markets for contexts where information is scarce. These studies will be based on various gender sensitive participatory research approaches using both qualitative and quantitative tools and methodologies. Gender-specific metrics are under discussion with the A4NH CRP. A study that would include gender-disaggregated household consumption data is being proposed.

4.1.2 Active participation of women and men farmers in technology development process:
Multi-stakeholder participatory action research will be an important component of technology development through which men and women stakeholders will be systematically consulted in research and in technology evaluation to identify their own priorities, varietal preferences, success stories, lessons learned, tools and mechanisms.

4.1.3 Gender disaggregated data collection:
Data will be gender disaggregated for inputs to targeting, research priority setting, gender specific analysis of preferences and incorporation of that analysis in the future breeding strategies, technology design and evaluation, baselines for monitoring and impact assessments, fully understanding the differing roles of men and women.

4.1.4 Targeting:
Specific targeting of women to involve them in the selection of varieties that suit both their food, nutrition and market needs will be emphasized. These will include varieties that mothers see as suitable for young children. These efforts will complement the body of in-depth strategic gender research. Farmer’ participatory varietal selection (FPVS) approach currently in use across all participating organisations will continue to actively involve both women and men farmers of different social classes to increase their influence on the breeding criteria.
Specific targeting of various women’s groups will be emphasized during the selection of varieties where potential trade-offs between traits (i.e. micronutrients, commercial value, drudgery) exist to ensure that the program does not stray from their concerns, or is able to adjust to any changes in these concerns. Qualitative assessment of trait preferences will be complemented with quantitative assessment of trait trade-offs for each gender group to ensure that gender targeting is achieved while maximizing welfare gains.

Development of technologies that will deliver particular benefits to women (e.g. reducing drudgery, opening opportunities for value-adding post-harvest processing and food preparation).

The opportunities to build upon the advantages of women’s participation in technology development and value chains of legumes with effective access to input and product markets because of their crucial role in household economies and welfare will be enhanced.

Women’s groups and associations of women’s groups will be targeted for building their capacity to organize produce and market collectively to different markets. Product development and identification of agro-enterprises will be gender sensitive to ensure that products that are more accessible to women are developed and are inclusive of women in a participatory process. Past experiences have shown that men often take over such enterprises after they become profitable and that social organization helps to protect women’s interests. Therefore, the CRP will forge partnerships with gender interest groups to advocate to changes that favour women interests while ensuring that interventions do not create community conflicts.

4.1.5 Gender considerate skills and knowledge enhancement strategies:
Such activities will be developed and conducted in areas of seed systems to facilitate an equitable participation of women and men. Nutritional messages will be developed. Considering that a certain number of farmers have limited literacy, information systems and communication strategies will be established to enable equitable access information about varieties and seed quality to both illiterate and literate. These strategies include decentralized demonstration/field days, study tours, variety posters and integration of traditional information systems.

4.1.6 Capacity strengthening activities:
The CRP Grain Legumes will also include capacity strengthening activities to empower women and other disadvantaged groups. Such activities will include a range of training and context-specific activities such as collective action that will lead towards empowerment. Capacity strengthening and technical training will include women in equitable numbers (e.g. in farmer field days, training of trainers, and workshops).

4.1.7 Strategic gender research activities
Various socio-cultural norms and practices deeply influence the way agriculture research for development is implemented. Our strategic gender research will undertake a socio-economic and gender analysis of women and men’s perceptions, their specific contributions in the grain legume value chains, and their associated rewards and gains. The study will also document whether the key technologies developed are (or are not) benefitting women to the degree expected. Examining the dynamics of women’s role and contribution, and understanding the adoption behaviors include understanding constraints and opportunities, gender relations and roles in the community and household, household decision-making, extent of involvement in technology development and dissemination, that technology adoption is highly contextual, has temporal and spatial dimensions, and agricultural tasks are gender segregated. Furthermore, examining the impacts of the adoption of
the technologies on women, particularly in terms of drudgery reduction, nutrition and income goes beyond gender disaggregation and look must into more nuanced issues relating to gendered power relations, behavioral/attitudinal changes, changes in practices and processes of decision making, dietary patterns, and changes in gender norms and relationship, especially in terms of work patterns. This will also help in understanding why the design of labor-saving technologies may not be enough for the Program to benefit women.

The research will provide evidence-based recommendations to development practitioners on different types of gender relations and suggest which ones require introduction of the technology to be accompanied by women’s empowerment interventions to assure a fair share of benefits flow to women as well as to men.

4.2 Capacity building among implementers
It has been observed that while awareness of the role and importance of gender in agriculture has improved greatly, the actual incorporation of gender into agriculture research has been uneven across institutions (Poats 1991). The major reason behind this is the lack of necessary capacity and skills. Lessons from past efforts show that training of researchers in gender issues result in substantial impacts on gender analysis among the researchers that were trained (Feldstein 1998). Thus, addressing gender issues will require partner organizations with adequate skills for which capacity strengthening in gender analysis will be an important component.

The activities for this will be:

- Training of staff in participating organizations in the basics of gender analysis and mainstreaming will continue to be supported and expanded to cover a wider scope of participants, both within and across institutions.
- Equal opportunities will be provided to women and young research staff to improve their knowledge, tools and skills in gender mainstreaming.
- Women in participating organizations and women extension agents will be encouraged to participate and will be involved in research and also benefit from capacity building activities.
- Shared positions for experts in gender issues to mentor staff in gender analysis and audit progress will be promoted and supported across centers at sub regional levels.
- Women and young adult farmers and traders will be mobilized and supported to actively participate in organized training meetings on gender mainstreaming.
- Training will focus on the existing staff and stakeholders and implemented through various arrangements that include workshops to encourage interactions among the participants, knowledge sharing platform and mentoring.

Gender-balanced staffing in the Centers involved in this CRP will be pursued in line with equity principles and also because in societies with a strong gender-based organization, both female and male researchers, extension officers and community facilitators will be needed to ensure the participation of women and men farmers in research activities.

5. Monitoring and Evaluation
A participatory gender-explicit monitoring and evaluation is proposed for the CRP. Such monitoring and evaluation will integrate local- and gender-specific indicators for monitoring outcomes. Monitoring will focus not only on equality of treatment for women and men, but also ensure that the intervention outcomes provide benefits for both men and women in an equal way. To ensure this, all data from intervention activities, and M&E processes should be disaggregated by gender and
analyzed, provide feedback lessons for better mainstreaming of gender into the activities, programming and implementation process of the CRP as well as inform policy.

It is also proposed that the gender sensitive participatory M&E system in each center be guided by a performance measurement framework that integrates local and gender specific indicators for monitoring project outcomes. This will ensure that these are measured both with technical indicators as well as local men and women generated indicators. Outcomes and outputs will be monitored for the extent to which they have affected both men and women.

The CRP Grain Legumes will work jointly with other relevant CRPs while consulting with gender experts in adapting the performance measurement framework to identify and integrate gender specific monitorable indicators relevant for legume research and development interventions.

Annual reviews by stakeholders and gender specific audits will be periodically organized to review the progress toward gender mainstreaming and evaluate gender specific social impact on well-being.

Some of the indicators that will be monitored are given below:

<table>
<thead>
<tr>
<th>Process indicators: advances in integrating gender into other research areas and having gender analysis results used to shape priorities, targeting technology design and recommendations of the Program.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of target population (men and women, other social groups, vulnerable and marginalized groups) - Representation of women in beneficiaries in proportion to their representation in the population</td>
</tr>
<tr>
<td>Consideration of gender differences in research problem definition and prioritization</td>
</tr>
<tr>
<td>Mechanisms in place for consultation and participation of both women and men in the design and implementation of the CRP action research program, and in the dissemination of findings and lessons learnt</td>
</tr>
<tr>
<td>Involvement of men and women in the innovation process (participation in identification and testing of promising varieties, use of indigenous knowledge, participation in and access to extension systems) through farmers groups and partner organizations, in proportion to men’s and women’s share of the rural population</td>
</tr>
<tr>
<td>A gender-responsive monitoring and evaluation system in place, including measurable indicators (to monitor change processes, outputs, and outcomes)</td>
</tr>
<tr>
<td>Mechanisms in place and used to draw on country and program-level gender expertise; gender integration becomes more demand than supply led</td>
</tr>
<tr>
<td>Budget and staffing levels appropriately reflect the strategy’s activities and outputs - Representation of women in program staff, especially where gender segregation requires women staff to work with women</td>
</tr>
<tr>
<td>Capacity needs of staff and partners assessed to integrate gender in the R&amp;D program</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Output indicators:</th>
</tr>
</thead>
<tbody>
<tr>
<td>gender disaggregated data - Sex disaggregated and gender relevant data collected</td>
</tr>
<tr>
<td>Gender and social analysis conducted and, used to inform program and</td>
</tr>
</tbody>
</table>

CGIAR Research Program on Grain Legumes
Gender Strategy
<table>
<thead>
<tr>
<th>Intervention design</th>
<th>Improved understanding of how to respond to gender differences in resources, technology adoption rates and value chain positions to create more equitable, people-centred systems and structures, and sustained wellbeing outcomes for women, men and households in grain legume production.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Improved capacity and skills of women and poor</td>
</tr>
<tr>
<td></td>
<td>Improved nutrition and health of women and children</td>
</tr>
<tr>
<td></td>
<td>Improved market opportunities and benefits for women from use of resources, skills and technologies</td>
</tr>
<tr>
<td></td>
<td>More opportunities for women’s meaningful participation in grain legumes value chains</td>
</tr>
<tr>
<td></td>
<td>Gender equitable economic opportunities and outcomes</td>
</tr>
<tr>
<td></td>
<td>Improved wellbeing outcomes for smallholder women, men and families</td>
</tr>
<tr>
<td></td>
<td>Reduced gender gaps in access to resources, knowledge, technologies, skills, social networks, services, markets</td>
</tr>
<tr>
<td></td>
<td>Positive change in the norms, attitudes and practices causing gender inequality, including the gender division of labor, the relative value of women’s and men’s paid and unpaid work, voice and decision-making at household, community, levels</td>
</tr>
</tbody>
</table>

**Impact (System level outcomes)**

- Reduced poverty
- Increased food and nutrition security - enhanced diet quality, quantity and diversity for families, particularly women and children
- Increased incomes for women
- Inequality gap between men and women reduced
- Sustainable NRM

### 6. Budget

The Grain Legumes research budget includes central allocation of costs to Gender Research in two modes; approximately 2% of the W1/W2 budget is directly allocated to Gender Research and is managed by the Principal Scientist - Empower Women in conjunction with the Project Management Unit while an equivalent amount is allocated to research activities within each Product Line. This partly reflects the distinction between Gender Research and Strategic Gender Research, and corresponds to approximately 10% of the W1+W2 budget. CIAT, ICRISAT and ICARDA have gender specialists who will devote approximately 35% time to the CRP researching gender aspects of targeting, planning, design and implementation in addition one full time gender specialist for this CRP will be appointed (at ICRISAT) plus 3 scientific officers giving 50% each of their time.
### Budget table

<table>
<thead>
<tr>
<th></th>
<th>Windows 1 &amp; 2</th>
<th>Bilateral + W3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actuals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PL 1 Drought and low-phosphorus tolerant common bean, cowpea and soybean</td>
<td>1,514</td>
<td>5,031</td>
<td>2,964</td>
</tr>
<tr>
<td>PL2 Heat tolerant chickpea, common bean, faba bean and lentil</td>
<td>774</td>
<td>2,130</td>
<td>1,277</td>
</tr>
<tr>
<td>PL 3 Short-duration, drought tolerant and aflatoxin-free groundnut</td>
<td>1,049</td>
<td>2,618</td>
<td>1,589</td>
</tr>
<tr>
<td>PL 4 High nitrogen-fixing chickpea, common bean, faba bean and soybean</td>
<td>1,194</td>
<td>4,182</td>
<td>2,492</td>
</tr>
<tr>
<td>PL 5 Insect-smart chickpea, cowpea and pigeonpea production systems</td>
<td>824</td>
<td>2,588</td>
<td>1,571</td>
</tr>
<tr>
<td>PL 6 Extra-early chickpea and lentil varieties</td>
<td>680</td>
<td>1,249</td>
<td>758</td>
</tr>
<tr>
<td>PL 7 Herbicide tolerant, machine-harvestable chickpea, faba bean, lentil varieties</td>
<td>651</td>
<td>2,039</td>
<td>1,237</td>
</tr>
<tr>
<td>CRP Management/Coordination</td>
<td>10</td>
<td>1,547</td>
<td>1,624</td>
</tr>
<tr>
<td>Gender Strategies</td>
<td>262</td>
<td>350</td>
<td>350</td>
</tr>
<tr>
<td><strong>Total – all Costs</strong></td>
<td><strong>7,467</strong></td>
<td><strong>23,080</strong></td>
<td><strong>14,680</strong></td>
</tr>
</tbody>
</table>

NB the Gender Strategies relates to central expenditure issues and we estimate that ca 10% of the budget within each PL will correspond to gender.
7. Team and Management Structure

The CRP program gender leadership team includes the Program Management Unit at ICRISAT and the Research Management Committee which acting together with ICRISAT’s Principal Scientist - Empower Women who will be the Gender Team Leader. Collectively this group will be responsible for leading the Gender Strategy’s operationalization and implementation, under the direct supervision of the CRP Director. The team along with the gender specialists at ICARDA and CIAT will play a coordinating, facilitative and catalytic role to ensure the success integration of gender in the program. The team will collaborate with PL Leaders and work with local partners in implementation their respective milestones and outputs.

The gender specialists at ICRISAT, CIAT and ICARDA will coordinate the strategic partnership with other CG Centres and CRPs and other organisations and institutions for methodology and capacity development for gender analysis and research on specific questions related to gender.

The Research Management Committee comprises:

Dr. Noel Ellis, Chair of the Committee CRP Research Director
Dr. Irv Widders, Director USAID Feed the Future Innovation Lab for Collaborative Research on Grain Legumes

Dr. Dave Hoisington, Director USAID Feed the Future Innovation Lab for Collaborative Research on Peanut and Mycotoxins

Dr. Steve Beebe, (Leader of bean group at CIAT) PL1 coordinator - Drought & low-P tolerant common bean, cowpea & soybean

Dr. Michel Ghanem, (Plant physiologist at ICARDA) PL2 coordinator - Heat tolerant chickpea, common bean, faba bean & lentil

Dr. Patrick Okori, (groundnut breeder at ICRISAT- Malawi) PL3 coordinator - Short-duration, drought tolerant & aflatoxin-free groundnut

Dr. SK Chaturvedi, (Head of Crop Improvement, IIPR, Kanpur) PL4 coordinator - High nitrogen-fixing chickpea, common bean, faba bean, and soybean

Dr. Manuele Tamo, (Lead Insect pests in cereal–legume systems at IITA-Benin) PL5 coordinator - Insect-smart chickpea, cowpea, and pigeonpea production systems

Dr. Shiv Kumar Agrawal, (Lentil breeder at ICARDA) PL6 coordinator - Extra-early maturing chickpea and lentil varieties

Dr. Pooran Gaur, (Chickpea breeder at ICRISAT) PL7 coordinator - Herbicide tolerant machine-harvestable chickpea, faba bean and lentil varieties

Dr. Rajeev Varshney, (Research Programme Director, Grain Legumes at ICRISAT) PL8 coordinator - Pigeonpea hybrid and management practices

Resource persons as required by the committee (including:)

Rajesh Agrawal ICRISAT-India Assistant Director Finance, ICRISAT
Chanda Goodrich ICRISAT-India Principal Scientist - Empower Women
Nagalakshmi Dronavalli ICRISAT-India CRP PMU Administrator
K Sai Lakshmi ICRISAT-India CRP PMU Administrator
Nagaraji Satish ICRISAT-India CRP PMU Communications manager
S Gopalakrishnan ICRISAT-India PL4 focal contact person ICRISAT
CV Sameerkumar ICRISAT-India PL8 focal contact person ICRISAT

The Product Line (PL) leaders have major responsibility for ensuring that gender and social analysis are integrated into their respective PLs activity plans and for ensuring plans are implemented. Each
PL leader will collaborate with the Gender Team Leader to ensure availability of the expertise in gender and social analysis required, whether through other CRPs, partnerships, consultancies or recruitment. The PL Leaders in collaboration with the gender specialist(s) will coordinate initiatives (trainings, special studies, etc.) related to gender with development partners. The poor gender balance, and the lack of representation from disciplines other than biological sciences on the Research Management Committee is noted and will be addressed initially through the inclusion of resource persons and in a modification to the structure in the second phase proposal.

In addition, the Independent Advisory Committee of the CRP Grain Legumes, which reports to the Lead Center Governing Board, will provide input and advice to the ICRISAT Governing Board, Steering Committee and RMC on the quality and relevance of the Grain Legumes research portfolio, priority setting and allocation of resources.

The Independent Advisory Committee comprises:

**Dr. Jill Findeis**, Director, Division of Applied Social Sciences, Unviersity of Missouri, Columbia MO, USA

**Prof. Fred Muehlbauer**, USDA-ARS Grain Legume Genetics and Physiology Research Unit, Washington State University Pullman, WA, USA

**Dr. Joyce Mulila-Mittti**, Crops Officer, Crop Production and Protection, FAO Regional Office, Accra, Ghana

**Dr. Ousmane Ndoye**, Program Manager, Non Staple Crops, CORAF/WECARD, Dakar, Senegal

**Dr. Sayyed Hossain Sabaghpour**, Director General, Agricultural Research and Natural Resources Center of Hamedan Province, Hamedan, Iran

**Prof. Kadambot Siddique**, Hackett Professor of Agriculture Chair and Director, The UWA Institute of Agriculture, The University of Western Australia, Crawley WA, Australia

**Dr. Fina Opio**, Executive Director, ASARECA, Entebbe, Uganda

**Dr Raj Paroda**, Executive Secretary, APAARI, Bangkok 10110, Thailand

The management structure chart is illustrated to the right. The gender component is distributed throughout the Product Lines and exists as a separate item. The Steering Committee includes the Directors General (or designates) of all CGIAR Centers, initial key partner NARS, and at least one donor representative. The Steering Committee is responsible for the overall strategic direction of the CRP, monitoring overall progress, Advising on mechanisms to enhance the operations of the CRP, enhancing strategic alliances with partners, deciding resource allocations across CRP programs and partners and establishing guidelines for conflict resolution.

8. Capacity

Gender research capacity at the lead and participating centers is insufficient for the needs of the CRP Grain Legumes. A Principal scientist – Empower Women was recruited by the ICRISAT (Lead Center)
in March 2012, there are two additional people engaged in Gender Research at ICRISAT, one scientist conjunction with CRP Policies, Markets and Institutions, and one Social Science/Gender Consultant within the CRP Dryland Systems. ICARDA has one gender specialist, and CIAT hosted the Participatory Research and Gender Analysis (PRGA) Program.

In view of this limited capacity available at present, the recruitment of additional personnel to meet the requirements for gender expertise is under way. Table 5 below identifies capacity needs and availability in 2012 and 2013; positions under recruitment, projected recruitment and proposed use of consultants.

Gender-balanced staffing in the Centers, the PMU, and PLCs remains to be achieved but will be pursued in line with equity principles. Societies, scientific disciplines and R4D partners often propagate gender imbalance. This can cause difficulty at the level of the research program in achieving gender balance and other representational equalities, but this serves to focus attention on the need to remedy imbalance where possible.

The poor gender balance, and the lack of representation from disciplines other than biological sciences on the Research Management Committee is noted above and will be addressed initially through the inclusion of resource persons and in a modification to the structure in the second phase proposal.

### Table 5 Gender Research Positions

<table>
<thead>
<tr>
<th>Position / Qualification</th>
<th>Discipline or field</th>
<th>No</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Research Scientist</td>
<td>Social scientist with gender analysis experience</td>
<td>PhD</td>
<td>1</td>
</tr>
<tr>
<td>Research Scientists or Post doc.</td>
<td>Economist, sociologist or anthropologist with gender analysis experience Socialists or Agronomy, trained in gender analysis</td>
<td>PhD</td>
<td>1</td>
</tr>
<tr>
<td>Regional Research Associate</td>
<td>Social science, gender and development</td>
<td>Masters</td>
<td>3</td>
</tr>
<tr>
<td>Gender Training Coordinator /Consultant</td>
<td>Any</td>
<td>Masters</td>
<td>1</td>
</tr>
<tr>
<td>Consultants in Value Chain Analysis (6 month)</td>
<td>Team of marketing specialist and gender analyst</td>
<td>Masters or PhD</td>
<td>3</td>
</tr>
</tbody>
</table>

### 9. References


CGIAR Research Program on Grain Legumes

Gender Strategy