The importance of gender in agriculture for nutrition

Integrating Gender: Background and Motivation

Nearly every second child or 45% of children below five years of age are suffering from chronic malnutrition in Zambia. Chronic malnutrition results in stunting, or shortness in stature for a child’s age. It has long-lasting, irreversible effects on a child’s development, including health, mental development and school performance, and work productivity and income in adulthood. The Realigning Agriculture to Improve Nutrition (RAIN) project, implemented in Mumbwa district in Zambia’s Central Province, integrates agriculture, nutrition and health interventions with a strong focus on gender issues to improve nutritional status within the critical 1,000 days from conception until a child reaches its second birthday. RAIN aims to develop rigorous evidence of the effectiveness of this approach through research, and pilot a sustainable model for improving nutrition through agriculture that can be scaled up in Zambia and replicated elsewhere.

Although improved nutrition may seem like an obvious outcome from agricultural programming, in the past many interventions have focused on large-scale market based interventions that have not considered household nutrition. Broadly, there are eight pathways through which household agricultural activity can have an impact on child nutrition:
1) through consumption by household members of the produce a household produces; 2) through agricultural income that is spent on nutritious food or health care; 3) through positive or negative interactions with the food market environment, including food prices, 4) the natural resource environment, 5) and the health environment; 6) through a woman’s control of income and assets in making household decisions, and thus often increased spending and allocation towards nutrition; 7) through effects on a woman’s time, for instance time available for child care and feeding as well as self-care; and 8) through a woman’s dedication of labour and energy to agricultural tasks, and her subsequent nutritional status when pregnant. Although the last three objectives have a clear focus on gender (working through women’s empowerment), all pathways have gender dimensions, making gender a key concept in linking agriculture and nutrition. The RAIN project aims to affect several of these pathways, and explicitly to improve women’s knowledge, skills, productivity, and decision making power within the household. The hypothesis is that the beneficial effects on nutrition from agricultural programming will be better realized when gender is integrated directly into objectives and programming- and this idea is being tested through evaluation of the project.

As part of the advocacy and learning strategy of the RAIN project, Concern Zambia regularly facilitates national events with government and key stakeholders. In November 2013, a learning event was organised on the gender aspect of RAIN chaired by William Chilufya, coordinator of Scaling Up Nutrition Civil Society Alliance (SUN-CSO). Speakers at the event included the Minister for Gender and Child Development Honourable Inonga Wina; researchers from the International Food Policy Research Institute (IFPRI), evaluators of the RAIN project; the National Food and Nutrition Commission (NFNC), convenors for nutrition in Zambia; the Mumbwa District Nutrition Coordination Committee, key local government partners in RAIN; and the Mumbwa Child Development Agency (MCDA) and Concern Worldwide, implementers of the RAIN project. This brief is the forth in a series, and aims to bring together learning presented at this event around gender issues in program implementation from researchers and practitioners involved in the RAIN project.

Integrating gender into the RAIN project

One way to address gender within agriculture programming is to simply target women for program participation or for...
transfer of resources. However, this approach ignores the multiple inequalities women may face in relation to other members of their households and communities. The gender component of the RAIN project focuses on the various dimensions of women’s empowerment: individual (the skills, knowledge, confidence and aspirations of women); relational (the ability to negotiate and influence the nature of relationships and the decisions made within those relationships); structural (the policies, laws, social norms, culture and traditions which determine what women are expected to do, what services are available for them and who holds power); and associational (that women working together will have a louder voice and achieve a greater impact).

At the start of the project, a gender needs assessment was conducted to look at gendered attitudes and behaviours within communities related to agriculture and nutrition, and the associated barriers that they present to good nutrition outcomes. Awareness and behaviour change messages were developed from this assessment, both for special gender sessions and for inclusion in agriculture and nutrition activities within the project. Various tools and activities have been created for gender awareness raising, including posters; brochures explaining key gender concepts and a gender training manual which guides government extension and project staff in providing gender trainings to communities, traditional leaders, women’s groups and their husbands. Women’s group leaders receive training to increase leadership skills and participation of women in community structures. Drama groups receive training on how to effectively convey messages related to gender, agriculture and nutrition. The project promotes innovative ways to overcome gender barriers, including time- and labour-saving technologies such as the promotion of fuel efficient clay stoves and fast growing fuel trees (glyricidia) and creates awareness in communities on gender issues to enable community members to advocate for an environment that respects women when they are pregnant, breastfeeding, and feeding and caring for their children.

How can we know what are the best strategies to empower women to improve nutrition?

A recent review of the success of economic strengthening programs, including agriculture programming, in empowering women or achieving improved nutrition outcomes found that evidence was mixed and that rigorous evidence was sparse, even for programs which were historically thought to have measurable impacts on women’s economic empowerment. Some of these gaps in evidence are driven by lack of consistent measurement of gendered dimensions in agriculture. In 2012, a new metric for measuring individual-level agricultural involvement and achievement was developed by IFPRI and partners, the Women’s Empowerment in Agriculture Index (WEAI). The index measures women’s and men’s indicators across five domains: 1) autonomy in agricultural production; 2) access
and ownership of resources and assets; 3) control over and use of income; 4) leadership; and 5) time use. In addition to the five domains, the index incorporates indicators to measure a woman’s achievements in relation to the primary male within her household (gender parity index). The WEAI can be used to track progress in change, to diagnose areas of disempowerment, or to measure program impact of agricultural programming on nutrition or other wellbeing outcomes. As one objective of the RAIN project is to demonstrate impacts and provide research outputs and learning for similar programming, multiple dimensions of women’s empowerment—modified from the WEAI—are being tracked and measured. These findings will provide rigorous evidence of how gender modifies the linkage between agriculture and nutrition in the Zambian context.

Findings on gender and nutrition from the RAIN baseline survey

The RAIN baseline survey collected detailed information on characteristics related to women’s empowerment, their knowledge of infant and young child feeding practices (IYCF), and child nutrition and health outcomes. The data was used to examine important links between women’s empowerment and knowledge, and children’s nutrition and health outcomes. The main motivation behind this study is to better understand whether a woman who has greater empowerment is also able to improve the nutritional status of children in her household by exercising greater bargaining power. There is evidence that shows that men and women have different preferences for allocation of resources, and tend to distribute these depending on their bargaining power; there is also evidence of negative implications on nutrition when women are not empowered.

The data consists of 3044 households in six wards in Mumbwa district, including data on 3044 children between the ages of 24-59 months (when we see high rates of stunting having manifested), and 1566 children between the ages of 6-23 months (within the 1000 days when good nutrition is vital). For all children, data on height and weight (anthropometry) and visits to health clinics were collected; among the young children, data on dietary diversity and feeding practices were collected. For the analysis, height-for-age z scores (HAZ— a measure of the degree of stunting) and stunting rates among the older children, preventive health seeking behavior among all children, and minimum dietary diversity among the younger children are key outcomes. Knowledge of IYCF practices is captured by knowledge relating to breastfeeding and complementary feeding. Women’s empowerment is captured by an index including a range of characteristics related to economic/financial independence and involvement; say in decisions about agricultural production and output; access to social networks; communication with spouse; attitudes towards gender norms; autonomy to buy and sell household items; ownership and control of assets; and access to media.

The findings on women’s empowerment and nutrition show that at baseline, before the project started, overall women’s empowerment had a positive association with minimum dietary diversity among children aged 6-23 months; with likelihood of visiting a health clinic in the last six months; and with HAZ in children aged 24-59 months, and a negative association with stunting rates in older children. A woman’s knowledge of child feeding and care was not associated with any of the outcomes. This suggests that women with greater empowerment are able to exercise their bargaining power to divert resources so that children in their households get proper nutrition.

The analysis shows that there are clear linkages between women’s empowerment and children’s nutritional status, dietary diversity and health seeking behaviour. The linkages between women’s knowledge and these outcomes are not always present; it appears to be her empowerment to act on any knowledge

“You help me take care of your children at home even taking them to the clinic, you are my good husband”

Jane Chilemba—days after attending gender training
Data collection with women in the RAIN project. Credit: Terry Roopnaraine

she may have that is key. Caution is required in these findings as results are preliminary using baseline data and further robustness checks are needed, specifically around how knowledge indicators are constructed, but results appear to support action to promote women’s empowerment for the nutrition of her children.

**Summing up**

Evidence is growing, both in Zambia and internationally, that the empowerment of women to make decisions on the care and feeding of their children is key if agriculture programs are to make headway on improving the nutritional status of children. More work is needed going forward to understand the specific domains of women’s empowerment necessary for improved nutrition in the Zambian context, and in applying learning to policy and practice to translate these findings into interventions that are effective in Zambia and practical for scaling up beyond the project level.

The RAIN project aims to make a contribution to this effort with its ongoing program of implementation and research, and there is more good practice within Zambia that could be drawn together and learned from. A new phase of the RAIN project is planned with a stronger focus on understanding the domains of women’s empowerment that are most strongly associated with positive nutrition outcomes and the methodologies that can effectively promote change in

**Further reading:**

- Concern Worldwide and IFPRI, 2011-2013, RAIN project briefs 1-3

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