**What role can agricultural extension and advisory services play in realizing gender equality and improved nutrition?**

**Collection of contributions received**

Table of Contents

Topic note 4

Contributions received 6

1. Lola Gaparova, Mercy Corps and Intrahealth, Tajikistan 6

2. Dorine Odongo, International Livestock Research Institute (ILRI), Kenya 6

3. Andrea Bohn, University of Illinois at Urbana-Champaign, United States of America 7

4. Jeston Lunda, Action Aid, Zambia 7

5. Azage Tegegne, International Livestock Research Institute, Ethiopia 8

6. Kennedy Oulu, In Depth Consulting Group Ltd, United Republic of Tanzania 9

7. Muhammad Yaseen, Department of Agricultural Extension & Rural Development, University of Sargodha, Pakistan 10

8. Mure Agbonlahor, AUC, Burkina Faso 10

9. Mahesh Chander, Indian Veterinary Research Institute, India 11

10. Lola Garapova, Mercy Corps and Intrahealth, Tajikistan (second contribution) 12

11. Edye Kuyper, facilitator of the discussion 12

12. Botir Dosov, CAC-FRAS / CFS-HLPE, Uzbekistan 13

13. Mahesh Chander, Indian Veterinary Research Institute, India (second contribution) 16

14. Paul Rigterink, Potomac Technical Advisors, Unites States of America 17

15. Lucy Quainoo, MEL Consulting Ltd, Ghana 17

16. Carlos Granado Fernandez, Universidad Politécnica de las Fuerzas Armadas, Venezuela 18

17. Richard Leo, University of Guyana, Guyana 19

18. Mahtab S. Bamji, Dangoria Charitable Trust, India 19

19. Aklilui Nigussie, Ethiopian Institutes of Agricultural Research, Ethiopia 20

20. Mahesh Chander, Indian Veterinary Research Institute, India (third contribution) 21

21. Georges Bazongo, Tree Aid, Burkina Faso 21

22. Parikshit SampatRam, Pranam Kisan, India 24

23. Mahesh Chander, Indian Veterinary Research Institute, India (fourth contribution) 25

24. JC Wandemberg, Sustainable Systems International, India 26

25. Takele Teshome, Association for Sustainable Development Alternatives (ASDA), Ethiopia 26

26. Dick Tinsley, Colorado State University, United States of America 27

27. Kafui Agbe, Young Professionals for Agricultural Development, Ghana 28

28. Gulzada Kudaiberdieva, Bio Service, Kyrgyzstan 28

29. Emile Houngbo, National University of Agriculture, Porto-Novo (UNA), Benin 29

30. Funmilayo Bosede Olajide, National Horticultural Institute, Nigeria 30

31. Dr. Amanullah, Department of Agronomy, The University of Agriculture Peshawar, Pakistan 30

32. Amtul Waris, Indian Institute of Rice Research, India 30

33. Kuruppacharil V. Peter, World Noni Research Foundation, India 31

34. Carlos Granado Fernandez, Universidad Politécnica de las Fuerzas Armadas, Venezuela 31

35. Joy Muller, Switzerland 32

36. Adewale Oparinde, HarvestPlus, United States of America 32

37. Eileen Omosa, We Grow Ideas, Canada 32

38. Stanley Weeraratna, Rain Water Harvesting Forum, Sri Lanka 33

39. Valentine Obiasogu, University of Ibadan & The International Association of Students in Agriculture and Related Sciences, IITA agripreneur, Nigeria 35

40. Frank Eyhorn, HELVETAS Swiss Intercooperation, Switzerland 35

41. Mahesh Chander, Indian Veterinary Research Institute, India (fifth contribution) 36

42. Durlave Roy, Northern Agro Services Ltd, Bangladesh 36

43. Mohammad Mahbubur Rahman, YPARD Bangladesh, Bangladesh 37

44. Shahla Salah, YPARD, Pakistan 38

45. Mamiya Binte Ahsan, Agricultural Information Institute, Chinese Academy of Agriculture Sciences, Bangladesh 39

46. Dinesh Panday, YPARD, Nepal 39

47. Dick Tinsley, Colorado State University, United States of America (second contribution) 40

48. Fardous Mohammad Safiul Azam, University of Development Alternative, YPARD Bangladesh, Bangladesh 40

49. Akinremi Julian, Fourteen Farms, Local Representative YPARD, Nigeria 42

50. Philip Ifejika, NIFFR, Nigeria 44

51. Margaret Koyenikan, University of Benin, Benin City, Nigeria 44

52. Atinuke Lebile, SheAgric Initiative, YPARD, Nigeria 44

53. Pride Ebile, University of Hohenheim, Germany 45

54. Dick Tinsley, Colorado State University, United States of America (third contribution) 46

55. Mylene Rodríguez Leyton, Universidad Metropolitana de Barranquilla, Colombia 47

56. Edye Kuyper, Hajnalka Petrics, Soniia David and Fatima Hachem, facilitators of the discussion 50

57. Samuel Oluwafemi Ayanleye, YPARD, Nigeria 50

58. Elisabeth Simelton, World Agroforestry Centre (ICRAF), Viet Nam 51

59. Mahesh Chander, Indian Veterinary Research Institute, India (sixth contribution) 51

60. Gabor Figeczky, IFOAM – Organics International, Germany 52

61. Jane Sherman, Nutrition education consultant, ex FAO, Italy 55

62. Maria Eugenia Castillo Ortiz, DEBMAGRO, Ecuador 58

63. Emily Janoch, CARE, United States of America 59

64. Mona Dhamankar, KIT, Netherlands 60

# Topic note

The [Nutrition Working Group of the Global Forum for Rural Advisory Services (GFRAS),](https://www.g-fras.org/en/activities/nutrition-and-ras.html) of which FAO is a member, invites you to reflect on the role that agricultural extension and advisory services (AEAS) can play in contributing to reducing gender inequalities and improving nutrition. Gender equality and nutrition are quite intertwined, and there is compelling evidence that gender inequalities significantly undermine food security and nutrition objectives[[1]](#footnote-1).

Integrated approaches connecting the design and delivery of programs across disciplines and sectors are instrumental to address such challenges, with their importance having recently been highlighted by the UN Decade of Action for Nutrition. It is in such context that agricultural extension and advisory services (AEAS) have been identified as being able to play a significant role in the push for increased gender equality and improved nutrition.

**Agricultural extension and advisory services (AEAS) refers to any organization in the public or private sectors (e.g. NGOs, farmer organizations, private firms etc.) that facilitates farmers’ and other rural actors’ access to knowledge, information and technologies, and their interactions with other actors; and assists them to develop their own technical, organizational and management skills and practices, so as to improve their livelihoods and well-being[[2]](#footnote-2).**

Over the past few decades the role of AEAS has changed substantially, shifting away from a production oriented, technology transfer model to a greater emphasis on broader development objectives such as improving rural livelihoods through a demand-led, participatory and market-oriented approach. It is in the context of this paradigm shift that a potential role for AEAS in promoting gender equality and supporting nutrition interventions has emerged.

Experience suggests that AEAS can play a role in promoting nutrition outcomes, enhancing the food and nutritional security of household members, and ensuring sustainable food systems that promote healthy diets. Whether supported by the public, private, or non-profit sector, AEAS are often seen as a potential channel for influencing the production and consumption decisions of farming households so that they grow, sell, and eat more nutritious and diversified foods and time-saving technologies to alleviate drudgery.

At the same time, addressing gender constraints and unequal access to services and technology is essential for AEAS to effectively contribute to improved diets and nutrition. The [INGENAES project](https://ingenaes.illinois.edu/),  funded by USAID to assist countries in building more robust, gender-responsive, and nutrition-sensitive extension and advisory services, has begun to address these gaps by supporting the adoption of policies that recognize gender equality and nutrition security as AEAS objectives, training AEAS institutions, and disseminating accessible materials for field-level staff. In Liberia, for instance, INGENAES is collaborating with the University of Cuttington and the Ministry of Agriculture to survey AEAS clients to better understand barriers to gender equitable services, and ensure that high-level policy is translated into action at the field level that meets the needs of both men and women farmers.

Concrete experiences and success factors, including approaches, methodologies and tools that work to enhance women’s and men’s equitable access to AEAS as well as nutrition results have however not yet been identified conclusively and examples of successful cases are still sparse.

Given the above, the objective of this online discussion is to collect experiences, methodologies, and lessons learned around gender-sensitive and nutrition-enhancing AEAS practices from all over the world.

We invite you to join the conversation by reflecting on the following questions:

1. To what extent do you think should AEAS be involved in broader development, going beyond providing and facilitating access to knowledge, information and technologies?
2. What specific challenges have you encountered that hinder AEAS from addressing gender inequalities and promoting nutrition?
3. Do you know any examples of AEAS successfully addressing gender inequalities and supporting improved nutrition outcomes? What factors, including specific approaches and tools, led to success?
4. What do you think the role and main activities should be of a global forum such as the GFRAS Nutrition Working Group in helping AEAS to become more gender-sensitive and able to contribute to improved nutrition?

The results of this discussion will inform the work of the newly-formed GFRAS Nutrition Working Group, which provides resources and effective coordination opportunities for practitioners and policy makers. We hope that through enabling a broad participation of experts in this exchange, we can stimulate the uptake of innovative gender-sensitive and nutrition-enhancing AEAS practices.

Forum participants will become part of the broad community of the GFRAS Nutrition Working Group. They will receive updates about the Working Group’s activities and also have the opportunity to contribute to future initiatives.

Thank you and we look forward to a fruitful discussion!

*Hajnalka Petrics, Soniia David and Fatima Hachem, FAO*

*Edye Kuyper, INGENAES*

# Contributions received

## Lola Gaparova, Mercy Corps and Intrahealth, Tajikistan

Agriculture development plays an essential role in improving nutrition. In many development countries, women play a major role in agricultural production, a critical component of food security – women farmers bring to bear valuable knowledge in seed selection, vegetative propagation and the reproduction of plants and animals. A growing body of evidence in international development establishes that gender equality at the household and community levels leads to superior agricultural and development outcomes, including increases in farm productivity and improvements in family nutrition.

There is currently need to establish an effective agricultural extension services for food and nutrition security, health and to achieve a range of rural development goals. It helps to reduce poverty through improved nutrition and increasing family income through increased and improved agricultural production primarily for women and their children in developing countries.

Extension services help farmers to access information on technologies, markets, inputs, and finance, and upgrade their farming and managerial skills.

Urgent efforts are required to:

* enhance women’s and men’s access to and knowledge about new agricultural technologies;
* ensure that farmers and other actors in value chains can deal with changing markets;
* enable farmers to adapt to new climate change challenges;
* support rural communities to manage their natural resources more effectively;
* assist farmers to make optimal use of their available resources to ensure access to food and income for their families.

## Dorine Odongo, International Livestock Research Institute (ILRI), Kenya

**To what extent do you think should AEAS be involved in broader development, going beyond providing and facilitating access to knowledge, information and technologies?**

Agriculture extension and advisory services can play a tremendous role in influencing uptake of technologies and 'best practices' among smallholders:

Farmers have different information needs based on their context, and hence use different channels to access information. At the same time, the available sources of knowledge and information have an immense influence on farmers' activities and practices. As such, tailoring AEAS to specifically facilitate access and exchange of nutrition-focused content is one way through which improved nutrition for communities can be realised.

Decision making power and uptake of technologies are inextricably linked; Identifying the entry-point to women's empowerment and ability to make and implement decisions is fundamental to realize improved nutrition. AEAS can be organised to identify and work with local 'influencers' in the communities to devise engagement strategies that will tailor messages based on women's sphere of control. For example, could the key to improved nutrition be on developing and facilitating exchange of knowledge and information on production of small livestock such as chicken?

By employing engagement strategies that target and address women's interests and access to resources, AEAS can facilitate improved gender and equality and improved nutrition. From previous studies, it has been established that socialisation is a major process through which knowledge shared and converted within the small holder set up, with the main models used for knowledge dissemination involving the face to face interaction between the farmers and the extension agents.

See journal article attached.

Attachment:

<http://www.fao.org/fsnforum/sites/default/files/discussions/contributions/aiw6-%2816%29-pp133-137-Odongo.pdf>

##  Andrea Bohn, University of Illinois at Urbana-Champaign, United States of America

I would love to hear from extension practitioners, describing a very practical way in which they are addressing nutrition in their work. I bet many are doing so without necessarily explicitly referring to nutrition. For example, by assisting farmers in better managing their poultry flock and making sure children are not exposed to the feces, nutritional outcomes can improve.

This attached report on "Mainstreaming Nutrition into Agricultural Extension: Lessons Learned from the Integrated Agriculture and Poultry Nutrition Projects in Bangladesh" (jointly prepared by FAO/Bangladesh and INGENAES) gives lots of examples of how to integrate nutrition in agricultural development and extension programs.

Attachment: <http://www.fao.org/fsnforum/sites/default/files/discussions/contributions/INGENAES%20FAO%20%282016%29%20Mainstreaming%20Nutrition%20into%20Ag%20Extension_0.pdf>

##  Jeston Lunda, Action Aid, Zambia

For a long time now, AEAS have been male dominated; due to mainly the patriarchy arrangements. Knowledge and exposure is perceived as a preserve of men. The problem is even deeper in rural areas where agriculture is the mainstay of people's livelihoods. This approach is however in contrast with the situation on the ground; women are more involved in provision of agricultural labor, they are responsible for providing food for the family. They are however doing all that with little or no knowledge as the knowledge is sitting with the man. The extension workers in most cases are male; who may have barriers to effectively connect with women to get to the underlying causes of the inequalities women experience and how these can be addressed. This is the gap and food insecurity continues to widen and deepen. Unless we begin to addressing the underlying causes which mainly touch on culture and tradition; unless we begin to transformatively empower women to understand their rights but also acquire reasonable levels of education and begin to create spaces for them to engage based on their needs; we will continue to experience these high levels of food insecurity and poor nutrition.

##  Azage Tegegne, International Livestock Research Institute, Ethiopia

We in the LIVES project have been working with the national extension system in Ethiopia and are happy to share our experiences in relation to gender equity. Below please find a summary of our experiences.

Best regards,

Azage Tegegne
LIVES Project Manager

**LIVES project approaches, experiences and lessons in gender-responsive agricultural extension and advisory services**

In recent times, the landscape of agricultural extension and advisory services in Ethiopia is changing with new roles, actors and relationships coming into play. Several initiatives have been taken by the government, development partners and civil society organizations to deliver market-oriented, gender-responsive and climate-smart extension and advisory services.

Development agents in Ethiopia are no more focusing on technology transfer alone but are required to facilitate linkages and innovation along the value chain and need to have a broader set of skills than previously was needed.

My contribution aims to reflect on the approaches, experiences and lessons of the LIVES project in developing the capacity of public extension services to design and deliver gender-responsive agricultural extension and advisory services. The Livestock and Irrigation Value Chains for Ethiopian Smallholders (LIVES) project is jointly implemented by the International Livestock Research Institute (ILRI) and the International Water Management Institute (IWMI) in partnership with public and private partners at different levels.

LIVES intervenes in four regions to capacitate the public extension system in market-oriented development approaches. Core to LIVES interventions is gender equality and women’s empowerment. The project has tested innovative approaches to increase the participation of women in value chain development interventions. Key features of LIVES gender strategy and methodology include: conducting gender analysis; setting gender targets; collecting gender-disaggregated data; conducting gender reviews of project plans and reports; and organizing women-focused study tours and field days.

Two participatory approaches - couples training and household coaching and mentoring - have proved effective in addressing gender constraints in reaching out to women both in male- and female-headed households. The LIVES project adopts couples training – training both husband and wife – on the ground that male household head only training can suffer training application challenges, as husbands rarely transfer learning to their household members.

The project experience shows that adopting couples training approach has several advantages. For example the approach has:

* Improved collective household decision and action, as it increases access to knowledge and skills by women in male-headed households and enhances their acceptance and ability to share knowledge within the household and with neighbours.
* Increased training application, as the couples share knowledge and support one another in applying trained knowledge and skills in the workplace.
* Increased knowledge and information sharing through informal and formal interactions of women networks.
* Helped male development agents mitigate socio-cultural constraints to working with women producers, since husbands are trained with their wives and the couples have developed action plans for knowledge and skills application with a follow-up technical support from development agents.

There are, however, challenges to implementing the approach. It requires closer engagement with development agents to convince them and develop their confidence in the approach. It also requires engagement with couples to discuss training utility and what the household could change as a result of the training. Another constraint is venue and duration of training events. Couples training events should be organized in places where women in male-headed households can return home on the same day. Training should be village based, given at times suited to women's workload and should focus on practical skills and technologies selected and prioritized by the women.

The other approach is household coaching and mentoring. The project adopts this approach to address training transfer challenges and increase learning opportunities for women and youth in male-headed households.  The project has provided intervention households with regular follow-up and technical support in applying learned knowledge and skills in the workplace.

As for couples training, household coaching and mentoring approach has several advantages. For example, it has:

* Enhanced interactions among household members, leading to increased sharing, learning and collaboration, and adoption of improved technologies and practices.
* Helped fill learning application gaps and continue the learning process after training sessions through practice and feedback.
* Facilitated spontaneous dissemination of knowledge and skills among producers through the demonstration effects of coached and mentored households, who have provided assistance to other producers in acquiring new knowledge and skills.
* Helped male development agents reduce socio-cultural constraints to reaching out to women in male-headed households.

In conclusion, we have observed that, as a result of couples training and household coaching and mentoring interventions, women in male-headed households have come forward as leaders of value chain activities. Women are more practical and eager to apply learning from training sessions. They have influenced their households to make changes based on new knowledge and skills gained. It is expected that the resulting social and economic empowerment of women would give them more recognition as equal partners in the household and in the community as well. Involving partner staff in the organization and facilitation of couples training and household coaching and mentoring has helped develop awareness, willingness and skills to increase the participation of women in learning and sharing events. Coaching and mentoring of public extension staff has increased willingness and ability of project partners to involve more women in project interventions.

## Kennedy Oulu, In Depth Consulting Group Ltd, United Republic of Tanzania

I just wanted to share my experiences in evaluation of integrated programmes in food security, nutrition and gender in Tanzania.

I remember a case where, we identified through an evaluation that there are crops that are culturally considered "women crops" in certain areas. Invariably these include vegetables, ground (pea) nuts, beans among others. It was evident that when the "women crops" value chains were recognized and strengthened, then women increased their incomes from such crops and had significant control of incomes from the same. When we shared this insight with the local government officials (District agriculture and Trade officers), they were surprised and said "We as government prioritizes maize and rice in the districts, if only we knew that these are "men crops" and has effect on gender dynamics as much as incomes and control are concerned, then we would have at least included some of these crops (peanuts especially) in the district plan so as to benefit women and thus poor households.

Another case was about coordinating nutrition programs especially for pregnant women and infants at the district level. It was observed that the agriculture wing of the local governments have extension workers that sensitize communities on biofortified crops such as the orange fleshed sweet potatoes, however there are also CSOs based community development/health personnel who educate poor households on issues of nutrition (and sanitation). At the same time, there are Ministry of Health community champions who do the same. The challenge was that even within the same communities, these community extension workers, do not know each other and neither do they know what the other is doing.

There are a lot of examples, however I can sum that the following in respect of the two cases are clear and have significant effect on gender equality and community development:

1. It should be understood that there are women and men crops at the community level, and the so referred to as "women crops" are more nutritious. They also have higher potentials to increase women (and household) incomes and nutrition, but only when policies recognize and intentionally include them in district/national agricultural development plans.

2. There are overlapping mandates on community nutrition interventions between government extension officers and CSOs and private sector. Coordinating such initiatives through community champions helps in integrating the roles and providing effective and holistic services.

3. The need to build capacity of extension workers to integrate food security, nutrition, sanitation and gender is something to be pursued.

## Muhammad Yaseen, Department of Agricultural Extension & Rural Development, University of Sargodha, Pakistan

Agricultural extension and advisory services can play an imperative role to ensure gender equality and improved nutrition globally. Firstly by providing capacity building opportunities to rural communities toward community development in the form of groups. Secondly by integrating extension and advisory services to education by introducing nutritional campaigns in schools for sustainable nutritional intake among male and female children which will lead to healthy and nutritious life.

Capacity building programs will provide knowledge sources and skill enhancement for farming communities (including male and female farmers) to boost up farm production, similarly nutritious campaigns will ensure nutritional intake among male and female children, which will lead healthy life. In the same way extension and advisory services by female extension staff can target women participation in various agricultural activities to grow healthy and nutritious vegetables and fruits at household level. This practice will confirm gender equality in agriculture and will ensure nutritious food intake among farming communities.

## Mure Agbonlahor, AUC, Burkina Faso

The roles of agricultural extension and advisory services in gender equality and improved nutrition cannot be over-emphasised. The caution however is that, for better targeting, women empowerment should be the focus rather than gender equality. This has been found to be a prudent approach in sub-Saharan Africa.

The capacity building opportunity associated with extension activities as functional bridge between researchers and primary producers if properly harnessed can promote women empowerment. Evidences of successes abound where extension activities in post-harvest processing, through development of novel recipes from locally available crops have promoted healthy household nutrition.

Effective capacity building models of women producers can raise productivity and increase income. Production of high value horticultural crops presents a potent means to improve women producers’ livelihood resilience and nutritional wellbeing.

However, key success factors are the capacities of the change agent, relevance of advisory service as well as the ability of the proposed intervention (which must be a package) to build systemic capacities by integrating the socio-economic situations in the local economy.

## Mahesh Chander, Indian Veterinary Research Institute, India

India’s agricultural sector formally employs 80 to 100 million women (32.8% women against 81.1% men), since a big majority of women remain invisible farm worker preparing the land, selecting seeds, preparing and sowing to transplanting the seedlings, applying manure/fertilizers/pesticides and then harvesting, winnowing and threshing, women work harder and longer than male farmers. Women are more engaged and mostly informally in the sub- sectors like animal husbandry, fisheries and vegetable cultivation which almost solely survive on women. But we don’t see many women in training or capacity building programmes, bank loans, farmers’ educational visits, farm exhibitions unless these programmes are meant or mandated exclusively for women farmers. Though of late in India, women focused extension training programmes are being emphasized but when these are common for men and women, it is men who prefer to attend meetings & trainings etc. themselves than sending women from the households. In our study, we found the information level of women in animal husbandry remains low as their access to information sources, mass media, visits to credit, veterinary and input related institutions remain limited. Significant differences in information level of women and men livestock owners were observed even though the participation of women in livestock training programmes is on the rise. Suitable efforts are needed in modification of mode of training, content and training methodologies owing to differential training requirements of women farmers.

It’s due to poor formal participation of women in programmes organized by formal institutions, they miss the opportunity to improve not only their awareness, knowledge and skill base in farming but also lack the opportunities to know about improved nutritional practices for better health of them and their families. Many reports have suggested women in India are anemic and have associated problems arising out of malnutrition. Further, mother’s education, according to the NFHS, is highly correlated with the level of malnutrition among children. Children of illiterate mothers are twice as likely to be undernourished or stunted as children whose mothers have completed at least high school. The differentials are even larger when severely undernourished children are considered. Children of illiterate mothers are three times as likely to be severely undernourished as children of mothers with at least a high school education. The Agricultural Extension and Advisory Services in India have to take note of this neglected dimension in their strategies. It is equally important to skill farm women on agricultural practices and their nutrition needs as well.

<https://www.lap-publishing.com/catalog/details//store/ru/book/978-3-8484-8600-7/gender-factor-in-access-to-livestock-based-information-in-india>

## Lola Garapova, Mercy Corps and Intrahealth, Tajikistan (second contribution)

I want to share with my opinion regarding our discussion topic. We know that the number of people in the world is growing by about 70-80 million people a year. If we look at agriculture and the provision of food, each person tends to increase consumption, and the relative consumption also increases due to population growth.  The new agricultural technologies could help households to higher the quality and quantity of their products and have access to healthy food.  From my experience in Feed the Future Tajikistan health and nutrition activity I can say that the main agricultural activities in rural areas done by women, and they need access to resources, knowledge and services.

What challenges does agriculture face in future?

1. Lack of new irrigated land.
2. Climate change.
3. Soil degradation.
4. Deficit of fresh water.
5. Food Waste-Compromising Food Security.
6. Resource Depletion.
7. Population growth.

Of course all these challenges would bring us to hunger and poverty. It is a time to think about integration gender in nutrition activities, which should be considered by Extension providers and give answer to the question "Will there be enough food to satisfy the growing population?"  Through agricultural extension and advisory services to both men and women we can prevent hunger and poverty.

## Edye Kuyper, facilitator of the discussion

After a week’s activity, this discussion is generating very insightful contributions. I note several emergent themes:

* AEAS are extremely influential in household agricultural decision making, and historically they have favoured men and the agricultural activities that men are more likely to control.
* The ability to feed a growing population depends on the capacity of all farmers to improve their productivity, but women farmers typically have less access to information and market opportunities than men farmers.
* Promising strategies that engage both men and women exist. They require changes in the mindsets of organizational leadership, new approaches to AEAS training, and modifications to how they do their jobs.

One key to changing the way things are done is to engage young people in the process. Parents and educators know that once children are sensitized to an issue, they are hard to dissuade and can even influence the adults in their lives to change behaviours. Young agricultural professionals have a vital role to play in developing new ways of providing extension and advisory services, both now and in the future. Pre-service training that includes basic nutrition content will empower future AEAS staff to think more critically about how their services may impact household nutrition, and marketplace availability of nutritious foods.

I would also like to acknowledge the vital role that the country representative for Bangladesh of the [Young Professionals for Agricultural Development](http://www.ypard.net/)(YPARD) played in catalysing this online discussion. As the discussion continues, we therefore encourage you to also share inputs that consider the role of youth. More specially, it would be interesting to hear your opinion on the constrains to empowering youth in AEAS, and your ideas on how youth can influence the nutrition and gender issues through AEAS in your own communities.

## Botir Dosov, CAC-FRAS / CFS-HLPE, Uzbekistan

**Russian version**

Здравствуйте уважаемые организаторы и участники данной дискуссии.

Я хотел бы представить свои комментарии как на английском, так и на русском языке, так чтобы участники, которые не говорят на английском языке, смогли ознакомиться с моим мнением.

По моему мнению, мероприятия по распространению знаний и сельские консультационные услуги AEAS играют важную роль в улучшении здорового питания и ключевую роль в гендерном равенстве.

Говоря о здоровом питании, я имею ввиду, сбалансированное и правильное питание, необходимое для здорового образа жизни для всех. Участвуя, в тренинги INGENAES по вопросам внедрения аспектов гендерного равенства и здорового питания в сельские консультационные услуги, я почерпнул много нового для себя, то есть усвоил новые знания. Мне кажется, что знания определяют убеждения, и убеждения составляют основу действий. С этой точки зрения, я полностью согласен, что распространение знание является ключевым фактором решения многих вопросов. Однако, распространение знаний может быть эффективным и не достаточно эффективным. Эффективность распространения знаний должно определяться усвоением. А раз так, то мы должны правильно подбирать инструменты и методы распространения знаний для каждой целевой аудитории. Тренинги для специалистов AEAS могут отличаться (и адаптированы) от мероприятий по распространению знаний для домохозяйств.

Что касается, гендерного равенства, то это очень чувствительный аспект для нашего региона. Любые подходы, методы, инструменты и содержание AEAS должны быть тщательно рассмотрены, протестированы, прежде чем они будут применены на практике. Мы не можем, просто копировать разработанные модели AEAS направленные, на гендерное равенство. Опять же говоря о гендерном равенстве, мы должны четко определить в каком контексте мы это рассматриваем, например, гендерное равенство в семье, в обществе, в сельской общине, в коллективе, и что мы подразумеваем под равенством, и каковы цели этого равенства. Также, мы должны рассматривать гендерное равенство в увязке с национальными, культурными, религиозными, семейными ценностями. Возможно, мы должны глубже понять, почему мы говорим о гендерном равенстве, ведь гендерное равенство это само по себе не окончательная цель. Мы хотим рассматривать гендерное равенство, потому что хотим обеспечить справедливое распределение ресурсов, вкладов, времени; здоровье и благополучие; удовлетворенность текущим положением; уверенность в завтрашнем дне, для всех независимо от пола, возраста, семейного или общественного положения, уровня обеспеченности и физических способностей. И это, я считаю, окончательной целью мероприятий AEAS, направленных на гендерное равенство и здоровое питание. Поэтому, понимание текущей ситуации и поиск решений для ее улучшения является отправной точкой AEAS, в которой работники AEAS являются ключевой движущей силой. И поэтому, AEAS должны тесно быть увязанными с другими секторами, как здравоохранение, образование, спорт, культура, а также учитывать возможности таких секторов, как банковская и кредитная система, налогообложение и страхование, ИКТ и социальные сети, и многие другие.

Что касается, вопросов данной дискуссии, то мои комментарии следующие:

EНасколько, по вашему мнению, AEAS должны участвовать в процессе более всестороннего развития, выходя за рамки предоставления и облегчения доступа к знаниям, информации и технологиям?

Однозначно, AEAS должны не ограничиваться только традиционными методами распространения знаний и информацией, и предоставлением консультационных услуг по сельскохозяйственным практикам. AEAS должны использовать инновационные и эффективные практики и методы.

С какими конкретными проблемами вы столкнулись, которые препятствуют AEAS преодолеть гендерное неравенство и обеспечению здорового питания для всех?

Гендерное равенство и питание имеют широкое разнообразие аспектов в зависимости от контекста. Не существуют универсальных подходов, методов и инструментов. Они должны быть адаптированы для каждой целевой аудитории. При этом необходимо четко определить какие окончательные цели мы преследуем мероприятиями AEAS.

Знаете ли вы, какие-либо примеры, где AEAS успешно справляются с гендерным неравенством и поддерживают улучшение результатов питания? Какие факторы, включая конкретные подходы и инструменты, привели к успеху?

Если мы подразумеваем под «успехом» - справедливое распределение ресурсов, вкладов, времени; здоровье и благополучие; удовлетворенность текущим положением; уверенность в завтрашнем дне, для всех независимо от пола, возраста, семейного или общественного положения, уровня обеспеченности и физических способностей, то таких примеров я не знаю. Но есть примеры, которые направлены на содействие достижению этих целей. Например, Программа «Развития малого бизнеса и получения доходов» (район Бай-Алай, Ошская область, Кыргызстан), осуществляемая Хельветасом в консорциуме с Фондом Ага Хана, представляет собой пример планирования с учетом гендерных факторов для долгосрочной работы по сокращению бедности в в сельской и городской местности и улучшения занятости особенно среди молодежи и женщин. <http://baialai.kg/images/151024_ENG_FInal_Report_GSS_BAI_ALAI.pdf>

Как вы думаете, какую роль должны играть и основные мероприятия должны осуществлять глобальные форумы, такие как Рабочая группа GFRAS по вопросам питания, содействуя АЕАС стать более гендерно-ориентированными и способными способствовать улучшению питания?

Прежде всего стать платформой для многостороннего обсуждения вопросов улучшения здорового питания для всех; основанном на всестороннем участии основой для разработки стратегий, инструментов, методов, направленных на улучшения здорового питания для всех; источником коллективных знаний, ресурсов для разработки подходов; платформой для создания, обсуждения и согласования будущих сценариев и моделей развития AEAS, у учетом национальных приоритетов, ценностей, тенденций, а также национальных, культурных, религиозных, семейных и ценностей в различных контекстах; базой для коллективных действий, направленных на улучшение здорового питания для всех.

**English version**

Dear facilitators and participants of this discussion,

I would like to share my comments in both English and Russian, so that participants who do not speak English can understand my message.

In my opinion, AEAS play an important role in improving nutrition and a key role in gender equality.

Speaking about healthy nutrition, I mean the balanced and proper nutrition necessary for a healthy lifestyle for all. Participating in the INGENAES trainings on the introduction of gender and nutrition aspects in rural advisory services in Central Asia and the Caucasus, I learned a lot for myself, that is, I gained new knowledge. It seems to me that knowledge determines beliefs, and beliefs form the basis of action. From this point of view, I fully agree that spreading knowledge is a key factor in solving many issues. However, the dissemination of knowledge can be effective and not sufficiently effective. The effectiveness of the dissemination of knowledge must be determined by its digestion for further actions. And if so, then we should correctly select the tools and methods of disseminating knowledge for each target audience. Training for AEAS specialists can be different from those and adapted to rural households.

As for gender equality, this is a very sensitive aspect for our region. Any approaches, methods, tools and content of AEAS should be carefully reviewed, tested, before they are applied in practice. We can not, just copy the developed AEAS models aimed at gender equality. Again speaking of gender equality, we must clearly define in what context we are considering, for example, gender equality in the family, in society, in the rural community, in the office, and what do we mean by equality, and what are the goals of this equality. Also, we should consider gender equality in relation to national, cultural, religious, family values. Perhaps we need to understand more deeply why we are talking about gender equality, because gender equality itself is not a final goal. We want to consider gender equality, because we want to ensure an equitable and fair distribution of resources, inputs, time; health and wellness; satisfaction with the current situation; confidence in the future, for all regardless of gender, age, family or social status, level of wealth and security and physical abilities. And this, I believe, is the ultimate goal of AEAS activities aimed at gender equality and healthy nutrition. Therefore, understanding the current situation and finding solutions to improve it - is the starting point of AEAS, in which AEAS agents are the key driving force. Therefore, AEAS should be closely linked with other sectors, such as health, education, sports, culture, and take into account the opportunities of such sectors as banking and credit system, taxation and insurance, ICT and social networks, and many others.

As for the questions of this discussion, my comments are as follows:

To what extent do you think should AEAS be involved in broader development, going beyond providing and facilitating access to knowledge, information and technologies?

Definitely, AEAS should not be limited to traditional methods of dissemination of knowledge and information, and provision of advisory services on agricultural practices. AEAS should use innovative and effective practices and methods.

What specific challenges have you encountered that hinder AEAS from addressing gender inequalities and promoting nutrition?

Gender equality and nutrition have a wide variety of aspects depending on the context. There are no universal approaches, methods and tools. They must be adapted for each target audience. At the same time, it is necessary to clearly define which final goals we pursue with AEAS activities.

Do you know any examples of AEAS successfully addressing gender inequalities and supporting improved nutrition outcomes? What factors, including specific approaches and tools, led to success?

If we mean by "success" - an equitable distribution of resources, inputs, time; health and wellness; satisfaction with the current situation; confidence in the future, for all regardless of gender, age, family or social status, level of security and physical abilities, I do not know such examples. But there are examples that are aimed at helping achieve these goals. For example, “Small Business and Income Creation” programme (Bai Alai district, Osh Region, Kyrgyzstan) implemented by Helvetas in consortium with Aga Khan Foundation represents an example of gender sensitive planning aimed at long-term work for poverty reduction, alleviation of inequality between village and city, and improvement of employment opportunities, especially among youth and women. <http://baialai.kg/images/151024_ENG_FInal_Report_GSS_BAI_ALAI.pdf>

What do you think the role and main activities should be of a global forum such as the GFRAS Nutrition Working Group in helping AEAS to become more gender-sensitive and able to contribute to improved nutrition?

Above all, become a platform for multilateral discussion on improving healthy nutrition for all; participatory developing strategies, tools, methods, to ensure the improvement of healthy nutrition for all; collective knowledge resources; resources for developing approaches; a platform for the development, discussion and harmonization of future scenarios and models for the development of AEAC, taking into account national priorities, values, trends, as well as national, cultural, religious, family and values in different contexts; avenue for collective actions towards nutrition for all.

## Mahesh Chander, Indian Veterinary Research Institute, India (second contribution)

AEAS can effectively promote gender equality by enhancing their role in Producer Organizations (POs), Self Help Groups (SHGs), Dairy Cooperatives. In India, women dairy cooperatives and SHGs are some good examples where women could participate and develop confidence by engaging themselves in economic activities. The AEAS can think of making women aware about the role of POs, Cooperatives and  SHGs in empowering them.

<http://teca.fao.org/discussion/promoting-women%E2%80%99s-participation-and-leadership-producers%E2%80%99-organizations?page=2>

Taking a thread from Edye Kuyper's  comment on role of youth vis a vis AEAS, I am encouraged to share my blog posts at YPARD & AESA which speak how AEAS can engage more with youth - who are the future farmers. When we say youth, we should mean both men & women - normally in farming context in developing countries like India, often we relate only men with farming. This mindset has its manifestations at different levels and AEAS are no exception who often approach elderly male of the households to share information and services.

1. The Extension and Advisory Services (EAS) shouldn’t ignore youth, anymore! <http://www.ypard.net/testimonials/extension-and-advisory-services-eas-shouldn%E2%80%99t-ignore-youth-anymore>

2. Mentoring rural youth to make agriculture attractive. <https://blog.gfar.net/2017/05/24/mentoring-rural-youth-to-make-agriculture-attractive/>

3. 15 July: It’s WORLD YOUTH SKILLS DAY Today. <http://www.ypard.net/2016-july-15/15-july-it%E2%80%99s-world-youth-skills-day-today>

4. Youth: Potential Target For Agricultural Extension. <http://www.aesa-gfras.net/blogse.php?id=1019&title=Youth:%20Potential%20Target%20For%20Agricultural%20Extension>

When youth are targeted by AEAS for changing the mindset including for the issues like gender equality and improved nutrition dividends are likely to be more!

## Paul Rigterink, Potomac Technical Advisors, Unites States of America

Here are two reasons that some technical solutions that promote economic development for women in poverty do not succeed.

1) People in extreme poverty need to make money immediately.
2) People in extreme poverty do not have a large amount of investment funds.

The microloan industry has identified how women in extreme poverty hope to increase their income. AEAS needs to develop ideas that will help these women. For example, I particularly like the idea of AEAS preparing YouTube videos that provide vocational training for rural women living in poverty.

Here are examples of YouTube vocational training videos that might be needed by people who want to increase the income of extremely poor women who raise pigs in a tropical lowland or arid land environment.

What do successful pig farmers do differently that other farmers should do?

What is the best way for extremely poor women in a tropical lowland or arid land environment to provide food security and nutrition for pigs and chickens?

What is the best way to build a pigsty in an arid or lowland tropical environment?

Given commonly available food, what should extremely poor women be feeding their pigs so that they thrive?

Given common diseases of pigs in an arid lowland tropical environment, what preventive measures should be extremely poor women be taking for pigs?

Here are examples of YouTube vocational training videos that might be needed by a person who wants to increase the income of extremely poor women who raise chickens in a tropical lowland or arid land environment.

<http://www.accessagriculture.org/making-business-home-raised-chicks>

<http://www.accessagriculture.org/working-together-healthy-chicks>

<http://www.accessagriculture.org/taking-care-local-chicken>

<http://www.accessagriculture.org/feeding-improved-chickens>

Note that these videos show rural women in the process of increasing their income and providing better nutrition. The video scripts can be heard in a variety of languages. In particular, the videos are produced with poor women in mind. Without information of this type workers in the field will not have access to the technical knowledge they need to help extremely poor women.

## Lucy Quainoo, MEL Consulting Ltd, Ghana

**Agricultural Extension and Advisory Services Providers in rural communities:**

AEAS should be local indigenes, skilled in community engagement strategies, to enhance and serve as agents or community animators, in policy formulation and promotion of key development agenda, for the development sector going beyond agriculture and nutrition issues. It should include fundamental information in the areas of social, financial as well as digital inclusion, so that messages that filter to the rural community are targeted and focused in a holistic form developed with the specific socio-economic as well as cultural characteristics of the community in mind.

The roles should be gender sensitive to ensure that certain delicate issues are tackled appropriately.

**Challenges of Agricultural Extension and Advisory Service Providers role in addressing gender inequalities and nutrition:**

The difficulties of addressing such issues which stem from socio-cultural and religious norms within the rural communities are sometimes critical.

If the AEAS message is in conflict with what pertains in the rural community, the design and presentation of the message should be sensitive to existing norms and seen as a means not to change the entire cultural ecosystem but to enhance the already existing norms with a strategy that in all inclusive of the entire community stakeholder hierarchy to prevent resistance and promote sustainability.

**GRAS, AEAS role as a means of promoting gender equality and nutrition sensitive information:**

This should be seen as key. As agents in this area of development, already existing practices, norms and traditions should be carefully assessed and improved using participatory community engagement strategies making room for unique socio-economic as well as cultural implications.

Rural communities have a rich ancient, scientific and cultural heritage which should not be overlooked as archaic but seen as a basis to be improved for future generations - gender and nutrition thematic areas are no exceptions, thus this should be recognised and developed for the better to preserve the social fibre of the rural community which have survived millennia.

## Carlos Granado Fernandez, Universidad Politécnica de las Fuerzas Armadas, Venezuela

**Original contribution in Spanish**

Las politicas de extension y asesoria agraria en una comunidad agricola determinada deben surgir de sus necesidades mas sentidas y esto solo se logra conviviendo con ellos hasta el punto de ser aceptado como uno mas de ellos, con objetivos y metas claramente definidos en un cronograma de tiempo y con estrategias que se adapten a cada comunidad, no es igual una comunidad que carece de agua, principal limitante para la produccion agricola, que otra comunidad que carece de insumos agricolas como en mi pais VENEZUELA, que los productores trabajan a duras penas pese a que hay agua de sobra para producir. Las semillas no son certificadas, los fertilizantes son escasos y muy costosos, etc.

En relacion al punto de desigualdad de genero, las mujeres en mi pais han abandonado el campo para hacer largas filas y obtener productos subsidiados por el gobierno...

Saludos

**English translation**

Agricultural extension and advisory policies in any agricultural community must arise from its members most pressing needs, and this is only achieved by living with them to the point of being accepted as one of them, with clearly defined objectives and goals within a timeframe, and with strategies that are adapted to each community. It is not the same a community that lacks water -the main limiting factor for crop production-, than another community that lacks agricultural inputs, as happens in my country VENEZUELA, where producers are working in dire conditions despite the fact that there is plenty of water. Seeds are not certified, fertilizers are scarce and very expensive, etc.

Regarding the issue of gender inequality, women in my country have left the farms and are now waiting in long lines in order to obtain subsidized products by the government.

## Richard Leo, University of Guyana, Guyana

Agricultural extension and advisory services form an integral part of support services which holds great promise in reducing gender inequality and improved nutrition. However, access to the right resources and controls to ensure best practices are followed needs to be addressed in developing countries such as Guyana. Access to the right planting material, even basic services such as a soil analysis needs to be done by supporting agencies but are not. However, the solution can be partnering with private investors who wish to empower women and assisting them via access to finance, planting material, training, other agricultural inputs and markets in order to develop a sustainable supply chain. Thus, these women can earn more and provide better nutritional value meals to their children.

## Mahtab S. Bamji, Dangoria Charitable Trust, India

**1) To what extent do you think should AEAS be involved in broader development issues, going beyond providing and facilitating access to knowledge, information and technologies?**

Response: It will certainly be nice if AEAS can go beyond facilitating access to knowledge, information and technologies to issues such as sensitivity to gender and nutrition. However with the current syllabus of for training agriculture extension workers this may not be possible. A team of AE workers to include a social scientist in the team would help. Extension workers as it is have enough on their hands and may not be able to cope with more. Some sensitisation would help.

**2) What specific challenges have you encountered that hinder AEAS from addressing gender inequalities and promoting nutrition?**

Response:  In India as well as perhaps other countries, human nutrition is not taught as a separate subject. In earlier years this subject was included. But now it is not. Consequently, the nutrition knowledge of agriculture scientists in general, (including the extension workers) is rather poor. They are unable to appreciate the need of making cropping pattern nutritionally sensitive and environmentally sustainable. Also their mind set tends to be male centric and women are invariably left out of extension activities. This is now to some extent changing in India.

**3) Do you know any examples of AEAS successfully addressing gender inequalities and supporting improved nutrition outcomes? What factors, including specific approaches and tools, led to success?**

For last over 20 years, the respondent (a nutrition scientist) is associated in honorary capacity with Dangoria Charitable Trust, - a non profit NGO, and is working in the villages of Medak district of the South Indian state of Telangana (previously, Andhra Pradesh), on issues of health, nutrition, gender and livelihood. Our effort has been to persuade small and marginal farmers (mostly latter) to divert a small piece of their land to growing nutritionally important crops like vegetables (including green leafy vegetables), fruits, pulses and millets. Organic methods like vermi composting and use of botanical pesticides and water conservation are taught. Health, nutrition, sanitation education for behavioural change are important part of our effort since no technology can succeed without social engineering. Though women are the major target, family approach is used. To start with only men used to come for centralised training. But now we send invitation letters in the name of the women and let them bring their husbands. Even illiterate women enjoy getting letters in their name and get someone to read them out to them. This plus improved transportation from villages by way of shared auto rickshaws, and now mobile phones (which most women possess) has made a vast difference and now women come, often with their children. Apart from agriculture related technologies, cooking demos with nutrition education form part of both centralised as well as decentralised hands on training. DCT has a food processing centre and value addition to farm produce is also taught. ([www.dangoriatrust.org.in](http://www.dangoriatrust.org.in/))

Impact is assessed through acceptance of technologies, Knowledge, Attitude, Practice (KAP) surveys and household food consumption surveys done initially and finally. Impact on KAP is very good. Food consumption pattern of the household shows significant increase in the consumption of GLV, but not the other vegetables. 25-50% of home-grown vegetables are sold due to high market price, and home grown veggies (other than GLV) replace what is normally purchased from the market. However in the non-intervention villages, there is significant decline in the consumption of vegetables, suggesting that the home- grown vegetables, at least prevent the slide in vegetable consumption due to price rise.

Back yard poultry with high egg-yielding breeds have improved household egg consumption markedly.

Our attempt has been to promote two ways agriculture - keep growing crops like paddy and sugar cane which they grow for income, but also develop some homestead gardens on small patches of quarter acre or less for nutrition gardens. Home consumption rather than marketing is the mantra. BYP needs very little space or investment and recurring cost.

See the following publications:

1. Bamji MS, Murty PVVS, Vishnuvardhan Rao M, Satyanarayana G. With technical support from  N.Venkateshan. Diversification from agriculture to nutritionally and environmentally promotive horticulture in a dry-land area. Sight and Life, 25: 38-42, (2011)
2. Murty PVVS, Vishnuvaradhan Rao, Bamji MS. Impact of enriching the diet of women and children through health and nutrition education, introduction of homestead gardens and backyard poultry in rural India. Agric. Res. 5(2)210-217 (2016).

**4) What do you think the role and main activities should be of a global forum such as the GFRAS Nutrition Working Group in helping AEAS to become more gender-sensitive and able to contribute to improved nutrition?**

GFRAS should continue to emphasise that agriculture is not only for income and export but also to ensure household and individual food security. Insist on syllabus of agriculture degree to have a course in human nutrition and importance of gender sensitivity. Both farmers and farm women need training in marketing skills. For pull towards profitable marketing role of middle man should be reduced and remunerative procurement price should be given. As it is farmer is hit if she/he produces more and there is glut or produces less. Cost of production has gone up. Resistance to biotechnology including genetic engineering and GM foods should go.

## Aklilui Nigussie, Ethiopian Institutes of Agricultural Research, Ethiopia

AEAS has to go for agricultural innovation system since it is a necessary condition to accelerate productivity and achieve food security, nutrition and above all the value chains of human welfare and quality of life with substantial conservation of the environment. It is affirmative to develop a mechanism for sustainable farmers' adoption of technologies with delivery and capacity building.

High acquisition costs for agricultural package technologies application with time disparity, that of men. In my country women are interested in technologies that will not add workload time to the existing condition and demand the innovation of that can ease the existing burden with triangulated benefits (food security, nutrition and income generation); infrastructural development is one of the hindering point to resolve the gap of gender access and control of agricultural technologies.

## Mahesh Chander, Indian Veterinary Research Institute, India (third contribution)

Many of us would agree that youth are important, they need to be empowered to be decisive on agricultural matters, but there are constraints in doing so. For example, in India,

i. they don't own land. The AEAS contact those who are the owners of land even when they are not engaged themselves in agricultural operations.  The AEAS should approach those who are actually working in the field, so that they can help influence the decisions of the owners of land.

ii. Financial institutions ignore youth for the want of collateral: May be youth have wonderful new ideas but can’t implement for the want of money. The AEAS can organize youth competitions for scouting the innovative ideas to be implemented to improve agricultural practice including improving household nutrition.

iii. Youth are not invited in the meetings organized for agricultural and rural development issues. It is the elderly males who often participate in these meetings. The AEAS must ensure meeting to be age and gender balanced for effective meeting outcomes.

iv. The AEAS must pay attention to Social Media usage in farm sector like WhatsApp, Facebook etc as these media attract youth more than the elderly. The youth including females would be able to influence each other while sharing useful information via social Media.

v. Youth are more closer to information and communication technologies including Social Media they can better fit to connect farmers to markets, reducing transaction costs, and raising food system efficiencies. Young people should be engaged more in agricultural value chains, and AEAS should focus more on value chain extension than only giving production advice. It’s the question of farm profitability not only the farm productivity, which can be understood better by youth than the older generations who have mindset of more production of traditional crops than having focus on profitability or we can say commercial orientation to farming than taking it as a way of life.

The AEAS has to change its mindset to meet the emerging requirements of new capacities, new demands and how to cater to these new requirements using innovative extension methodologies. The link between agriculture and nutrition is certainly the new requirement which needs to be met with new ways than the conventional approaches.

## Georges Bazongo, Tree Aid, Burkina Faso

**Original contribution in French**

Mes contributions sont données en dessous des questions reprises:

**1) Quelle devrait être, à votre avis, l'intervention des services de conseil et de vulgarisation agricole dans le développement au sens plus large, au-delà de l'octroi et de la facilitation de l'accès au savoir, à l'information et aux technologies ?**

Les agents et le système de vulgarisation constitue à mon avis les piliers du développement rural et d'atteinte de la sécurité alimentaire et nutritionnelle dans nos pays du tiers monde t notament en Afrique. Ce sont les porteurs de changement tant en termes de mentalité, de comportement que d'organisation. Dans ce cadre, leurs interventions doivent être de proximité et permanentes sur le terrain. Ils doivent jouer un rôle d'accompagnement et d'agent de changement  car ils sont des références sures pour les producteurs.

**2) Quels sont les problèmes spécifiques qui empêchent les services de conseil et de vulgarisation agricole de venir à bout des inégalités entre les sexes et promouvoir la nutrition?**

En Afrique depuis les politiques d'ajustements tsructurels des années 1990 et 2000, l'Etat est résumé à jouer un rôle regalien et les agents de vulgarisation sont invités à intervenir à la demande. Cet état de fait à négativement impacter le niveau d'encadrement et d'accompagnement des producteurs pour le changement et les innovations. Car le niveau de scolarisation et d'ouverture des producteurs au monde extérieurs des producteurs est font de leur premier contact avec les personnes externes mais de proximité et les agents de vulgarisation en sont les premiers. Donc avec la restructuration des systèmes de vulgarisation qui a comme conséquence la diminution du personnel, des moyens logistiques et financiers et la quasi abandon des formations continues de ces agents, ces derniers ne sont plus opérationnels sur le terrain et ceux qui le sont ont des niveaux de formation et de technicité non conforme avec les besoins de changement et d'innovations.

A cela il faut ajouter la faible ratio des femmes comme agents de vulgarisation, le faible niveau de connaissance des agents en termes de genre et de nutrition. Les actions sont plus axées sur la production et la productivité notamment des céréales et des cultures d erentes que sur la diversification de la production. Ils interviennent très peu dans les questions de genre et d'accès aux moyens de productions et de transformations pour améliorer le statut nutritionnel des ménages à base de produits locaux. C'est que nous essaiyons de changer dans les projets que nous concevons en oeuvrant à renforcer les capacités des agents de vulgarisation avec des connaissances et des outils simples sur le genre et la nutrition et pour promouvoir la consommation diversifiée des produits locaux.

**3) Connaissez-vous des exemples de services de conseil de vulgarisation agricole ayant réussi à résoudre les problèmes d'inégalités entre les sexes et à améliorer les résultats nutritionnels ? Quels sont les facteurs, notamment les approches et les outils spécifiques, qui expliquent ce succès ?**

L'approche qui j'ai vécu l'expriénce est dans la diminution des inégalités dans l'accès aux intrants et à la terre pour les femmes accompagné de la promotion de la diversité de production de légumineuse en association avec les céréales ou les cultures de rente comme l'anacarde. Cette approche intégrée a permis d'apporter un appui en semences améliorées de soja et de niébé aux femmes, à ls formés à travers leurs pairs "formateurs endogènes" plus proches d'elles, et faciliter leurs accès aux terres productives sous l'anacarde et les champs de céréales en sensibilisant les hommes sur les bienfaits des légumineuses sur la fertilité des sols, les avanatges nutritionnels et la diversité de sources de revenus des ménage.

Cette approche nous a permis de passer de 8% de femmes à 43% de femmes bénéficiaires en 1 an et augmenter le score de diversité alimentaire des ménages de plus de 31 points en deux ans.

Les facteurs à succès sont la proximité de la vulgarisation avec des "formateurs endogènes comme relais des animateurs terrains avec un sentiment de confiance et de bonne dispositions aux innovations; l'association culturale et la diversité de productions avec une visée d'augmentation de la productivité et de la diversité alimentaire qui est favorable à l'amélioration nutritionnelle des ménages. Enfin, en appuyant des productions dites pour femmes (soja et niébé) dans des champs des hommes en majorité a été facilité par la complémentarité et les avanatges démontrés.

Les outils sont les intrants agricoles, les boîtes à images avec des exemplaires en langues locales pour les "formateurs endogènes", les "champs modèles" qui sont organisés autour des "formateurs endogènes".

**4) A votre avis, quel devrait être le rôle des principales activités d'une instance mondiale telle que le Groupe de travail sur la nutrition du Forum mondial pour le conseil rural (GFRAS) pour faire en sorte que les services de conseil et de vulgarisation agricole soient plus sensibles à l'égalité des sexes et puissent contribuer à l'amélioration des résultats nutritionnels.**

Le role des instances mondiales est avant *l'adoption et la promotion d'approche qui ont fait preuve de succès et de les partager avec les autres acteurs.*

Il faudra aussi que ces instances font du *pladoyer auprès des institutions comme la Banque Mondiale et le FMI pour ne pas destabiliser le système de vulgarisation dans une visée à réduire les dépenses mais de l'utilisation pour booster et diversifier les productions, promouvoir des agents de vulgarisation des deux sexes et renforcer leurs capacités en matière de genre et de nutrition.*

*Enfin, il faut aussi du pladoyer pour augmenter les financements du secteur et mettre à contribution les acteurs non étatiques (ONG, Associations, Organisations paysannes, ..) et le secteur privé qui est un acteur de changement vis à vis de ses clients comme entreprise sociale.*

**English translation**

My contributions are given below in relation to the questions raised:

**1) To what extent do you think should AEAS be involved in broader development, going beyond providing and facilitating access to knowledge, information and technologies?**The agricultural extension system and its agents are, in my view, the pillars of rural development and the achievement of food security and nutrition in our Third World countries, in particular in Africa. They are the bringers of change as much in terms of the way they think and behave as of organization. In this framework, their interventions must be characterized by closeness and permanence in the field. They must play a role of supporter and agent of change because they are a certain reference for producers.

**2) What specific challenges have you encountered that hinder AEAS from addressing gender inequalities and promoting nutrition?**In Africa, since the structural adjustment polices of the 1990 and 2000, the State has returned to play a kinglike role and the extension agents are invited to intervene on demand. This state of affairs has impacted adversely on the level of training and support for producers for change and innovation. For the level of schooling  and  openness of producers to the external world is made from the first contact with  people from outside but at first hand, and the extension agents are the first of them. Therefore, with the restructuring of extension systems which  has the consequence of reducing personnel, logistical and financial means and the virtual abandonment of continuous training of these agents, these last are no longer operational in the field and those that are  have training and technical levels that do not conform with the needs of change and innovation.

To that, it is necessary to add the low ratio of women as extension agents, and the low level of knowledge of the agents about gender and nutrition. Activities are more directed towards production and productivity, in particular of cereals and cash crops, than to diversification of production. They intervene very little in the questions of gender and access to the means of production and transformation to improve the nutritional status of households based on local products. That is what we were trying to change in the projects that we set up by working to reinforce the capabilities of extension agents with knowledge and simple tools on gender and nutrition and to promote the diversified consumption of local products.

**3) Do you know any examples of AEAS successfully addressing gender inequalities and supporting improved nutrition outcomes? What factors, including specific approaches and tools, led to success?**The approach with which I have had experience is in the reduction of inequalities in the access to inputs and to land for women, accompanied by the promotion of diversity of production of pulses in association with cereals or cash crops, like cashew nuts. This integrated approach has resulted in support through improved soya seeds and cowpeas for women, to train them through their peer "local trainers" closest to them, and to facilitate their access to productive land under cashew trees and to cereal fields, making men aware of the benefits of pulses for the soil’s fertility, the nutritional advantages and the diversity of the sources of revenue for households.

This approach has allowed us to pass from 8% to 43 % of women benefitting in one year, and to improve the score for household food diversity by more than 31 points in two years.

The success factors are the close up nature of the extension with local trainers passing on encouragement in situ, with a feeling of confidence and good disposition towards innovation; the association of culture and the diversity of products with a view to increase productivity and food diversity, which favors improved nutrition in households. Finally, supporting products considered to be for women (soya and cowpeas) in men's fields was in most part made easy by the complementarity and advantages shown.

The tools are the agricultural inputs, slide shows with examples in local languages for the local trainers, model fields, which are organized around the local trainers.

**4) What do you think the role and main activities should be of a global forum such as the GFRAS Nutrition Working Group in helping AEAS to become more gender-sensitive and able to contribute to improved nutrition?**The role of the global forum is *first the adoption and promotion of an approach that has been proved successful and to share it with other actors*.
It will also be necessary for the global forum to plead the case to *institutions like the World Bank and the IMF to not destabilize the extension system by trying to reduce expenses, but to use it to boost and diversify productions, promote extension agents of both sexes and reinforce their capabilities in terms of gender and nutrition*.

## Parikshit SampatRam, Pranam Kisan, India

Agricultural extension and advisory services (AEAS) doing so many things for social & ecological harmony. So many organizations, governments, and individuals are doing their best but still a long way to go.

It's time to introduce a single platform to the development of agricultural livelihoods.

A platform for everyone who can add some value. I working for years to sustainable agriculture establishment and I have seen so many organizations, governments, and individuals working in their own way. They using their force, their energy, their talent, their knowledge towards development and betterment of the agricultural society and it will make difference in many lives but again it's required an advanced and full proof plan for complete change with sustainability.

If we talk about gender and nutrition only, that is already very important part of complete agricultural life cycle.

We must accept that woman is the axis of human life and women always known for her management for life, hardcore survivor, and responsible human being.

As AEAS want to cover this topic than there are following steps should be taken;

1. An awareness campaign about the Healthy Lifestyle, food requirements, working capacity, time management, the basic necessity of living with result oriented regular follow-ups and anytime assistance.

2.  Kick back training program for every family to an establishment of sustainable living. Training about asset & resource management, health requirements & food habits, the importance of cleanliness & quality management, assets & liability management, skill development & integrated business management.

3. Categorized every individual as per skills and available resources. Provide them the managed work platform. Monitored and guided by experts. Meanwhile, create local experts for lifelong assistance. Employment generation fills the all gaps.

4. Practical group assignments to perform and better output. Divide work as per category, Female can perform in-house management, they can maintain books, packaging, procurement, hand work with soft skills, food & cleanliness management etc. so they take care of these activities and other side males can handle outdoor activities, hard work skills, security & protection, heavy work, field operations etc. so they actively fulfil their part.

5. In a healthy and balanced work environment always establish a positive and productive social development so if a family generate reasonable living needs, there will be no place for inequality and Malnutrition type of words.

If we want a real change we need to work from scratch and push to the top in one shot, as if we want to make a tasty dish, after all, we required all ingredients on time.

We are reaching the 4th industrial age and still, we have a big gap between developing and developed countries. We have the sharp technology and huge knowledge so we need to act accordingly.

I try to explain as I have my working experience.

Thank you so much

## Mahesh Chander, Indian Veterinary Research Institute, India (fourth contribution)

As part of my duties, we have to conduct training programmes, Model courses for farmers as well as for the field functionaries/trainers. It is common to see, these programmes are dominated by males. However, in one of the recent Model training courses for Field Veterinarians, we found 4-5 women vets coming from a single state, Kerala. I asked the reason that only women nominated from the state, while mostly male vets travel to distances for these trainings. They shared that they themselves took the lead this time and got themselves nominated for the training and the department was also supportive on the matter. My idea of narrating this is to highlight women themselves will have to take lead surpassing their limitations as the programmes and schemes alone may not be helpful. The AEAS often find it handy to handle male participants as with women there are several domestic commitments as narrated well here, <https://www.theguardian.com/global-development-professionals-network/2013/sep/25/women-agriculture-access-india>

Its a question of mindset, unless specifically called for, the AEAS personnel don't make efforts to ensure women participation. To start with, the AEAS personnel may be incentivized for encouraging women to participate in capacity building programmes, skill trainings. Women extension agents could be better suited to engage to serve women farmers. In case of dairy Cooperatives, we saw,   women supervisors were appointed in Rajasthan as elsewhere too in India, especially in All women dairy Cooperatives. These women supervisors could interact well with women compared to their male counterparts. Often we saw them chatting with rural women right inside their kitchens, where, they were able to discuss many of their problems with the comparatively aware supervisors. Women have manifold questions to seek answers for, beyond farm too and often they don't have channels to seek answers to these queries. These women supervisors mingle well with rural women and able to advise them on matters concerned with including their health, thrifts, children's education etc. The Home science graduates including those qualified in Food and Nutrition having good knowledge of nutrition in general and nutrition for women and children in particular could be roped in as extension agents to educate rural women on importance of good nutrition, while linking it with nutrition sensitive agricultural production practices.

## JC Wandemberg, Sustainable Systems International, India

Agricultural extension and advisory services must play a major role in realizing gender equality and improved nutrition through a truly participative democratic organizational structure (based on Open Systems Design Principles) conducive to creating an environment of symmetrical dependence where the whole is greater than the sum of its parts. In other words, an organizational environment conducive to enhancing human behavior in general and ideal-seeking behavior in particular.

Further info: <https://www.linkedin.com/pulse/antifragile-heteroticorganisations-jc-wandemberg-boschetti-ph-d-?trk=v-feed&lipi=urn%3Ali%3Apage%3Ad_flagship3_feed%3Bm6QQEHSCtXj01J4k06N58A%3D%3D>

## Takele Teshome, Association for Sustainable Development Alternatives (ASDA), Ethiopia

Dear All

Greetings from Ethiopia

One critical challenge in the extension and advisory service is the poor linkage between technology generators (academia/research) and extension or advisory service delivery (to disseminate the technology) and farmers linkages are also weak and affects the rate of adoption. As a result of such gaps research agenda are not often demand driven (needs and priorities of women are rarely brought to research agenda. This linkage gap also affects feedback generation form the end users (farmers) to initiate technology refinement or adoption. Strengthening this linkage and involving the private sector in this linkage is very important .The proven technologies can go to mass production and supply through the private sector possibly with credit facilities in order to increase the adoption rate. In the absence of such integration and linkages the marginalized group such as women will not have access to information and the new technologies.

I also believe that emphasis on economic objectives of Extension (production increase etc. etc.) and inadequate attention to the social objectives human wellbeing, nutrition, mind set etc.) has contributed to the observed gap.

The extension service delivery should pay due attention to decrease the workload of women so as to engage them not only on practical gender needs but also on their strategic gender needs (their political participation, leadership enhancement, access to information/knowledge etc.)

Also, in many rural setting there are few female extension agents to closely work with women groups to sensitize them, building their capacity, work not only on income poverty but also on human poverty to expand women choices. This will contribute to sustainable human development and mainstreaming of gender.

Furthermore, project socio economic survey/baseline studies should address the needs of both men and women and the monitoring indicators should be gender sensitive in order to track progress using gender.

Finally, I also suggest nutrition education be mainstreamed in the Education system particularly at university level and development agents working at community level should be trained in nutrition and measurement of key nutrition indicators.

Regards

Takele Teshome, Association for Sustainable Development Alternatives (ASDA)

## Dick Tinsley, Colorado State University, United States of America

This sound like an interesting forum, but I have some concerns. First I always get concerned when project suggest expanding government services. My basic definition of developing country, and the common denominator between them, is a financially suppressed economy in which consumer prices are only a fraction of those in developed countries, but wages are suppressed to 1/12th a developing countries. The result is more than 80% of income has to be spent on food. Since taxes have to come from the limited dictionary funds, there is very little tax base to generate the revenue for public services like extension programs. No taxes – no services. Thus while the government may employ people as extension agents, they will have a fairly low salary and virtually no support funds to implement programs, and thus effectively reach only a small percent of the intended beneficiaries. This also means they will often be seeking supplemental income which this could be a financial necessity. In short most host governments are financially stalled unable to undertake the services expected of them let alone add additional services like those envisioned in the article. Please review the following webpage from the [www.smallholderagriculture.com](http://www.smallholderagriculture.com/) website along with any appropriate links:

<http://smallholderagriculture.agsci.colostate.edu/financially-suppressed-economy-2/>

<http://smallholderagriculture.agsci.colostate.edu/financially-stalled-governments/>

The second concern is the relevance of improved nutrition to an impoverished society where the most impoverished are expected to undertake the most ardent manual labor. The improved diets being promoted are often develop from academic sources, and I will agree they are ideal and highly desirable, but are they feasible. That is can the impoverished people they are intended to benefit have a wage base that will allow them to afford the diet, or the energy needed to produce it. This gets to the issue of calorie energy balance, in which most smallholder farmers have access to only about 2000 kcal/day, which will barely meet their basic metabolism needs let alone allow them to engage in heavy manual labor. To undertake a full day of diligent agronomic labor the dietary energy needs to be in excess of 4000 kcal/day. The result is the work day is restricted to 3 or 4 hours of limited diligence and it can take up to 8 weeks for basic crop establishment with declining potential yield and food security with the delay. If they cannot afford or produce this dietary energy what are the rational compromises they should make in their diets that will optimize their very survival. Does the need for calories to complete the coming day’s tasks trump the desire for more diversified diets? Please review the following webpages and related links, and if possible take time to work through the exercise: Hard Choices in Quality Nutrition. If so inclined you are more than welcome to print and post the poster.

<http://smallholderagriculture.agsci.colostate.edu/calorie-energy-balance-risk-averse-or-hunger-exhasution/>
<http://smallholderagriculture.agsci.colostate.edu/ethiopia-diet-analysis/>
<http://webdoc.agsci.colostate.edu/smallholderagriculture/DietPoster.pdf>
<http://smallholderagriculture.agsci.colostate.edu/1028-2/>

## Kafui Agbe, Young Professionals for Agricultural Development, Ghana

Agricultural extension and advisory services (AEAS) are important in developing the capacity of families to improve upon practices to enhance their livelihood. It is important to assist service providers in their various communities to provide efficient service delivery. One key constraint hindering the empowering of youth in AEAS is the lack of necessary logistics for service delivery. Youth in AEAs need logistics such as adequate means of transport (motorcycles, car) to access communities for the provision of extension services.

There is the need to build the capacity of youth in AEAS on indigenous plants knowledge that are rich in nutrient in various communities. This approach is been adopted by the Women in Agricultural Development (WIAD) of the Ministry of Food and Agriculture, Ghana. Agricultural extension agents are educated on the planting of available leafy vegetables that the family can easily cultivate and use in the preparation of their diets.

Capacity building of youth in AEAS is required on gender issues and innovative ways to address them. Most AEAs are not abreast with the dynamics of gender issues in the various communities in which they work. This is because the development of new approach and methodologies will require the in depth knowledge of the current gender situation in the communities.

There is also the need for various agencies of government tackling nutrition in both women and children collaborate for effective delivery and monitoring of impact. For instance in Ghana, WIAD under the Ministry of Food and Agriculture needs to work closely with the Maternal Health Unit of the Ghana Health service that carry out public education for pregnant women and nursing mothers. These agencies need to work together and share approaches that are working to provide the right nutrition for the family.

## Gulzada Kudaiberdieva, Bio Service, Kyrgyzstan

Russian version

Каждая RAS организация, внедряя апробированные, также ноу-хау технологии по выращиванию сельскохозяйственных культур, ведении животноводства в домохозяйствах вносят определенный вклад в улучшении доступа к питанию и касаясь косвенно или непосредственно в обеспечении гендерного равенства и улучшение питания. Страны Центральной Азии и Южного Кавказа, например Кыргызстан, обладая благоприятными природно-климатическими условиями, имеют огромный потенциал для обеспечения питания для населения. Кроме того, богатый исторический опыт стран в аграрном секторе, который переплетается с социальными и культурными аспектами, существующими задачами социально-экономического развития, обозначает, что СКУ должны также принимать во внимание гендерные аспекты в сельской местности. Услуги по распостранению знаний и сельские консультационные мероприятия должны широко предлагать и распротрянять технологии и практики, которые одинаково доступны как для мужчин и женщин. Наша организация “Bio Service” Public Foundation - Общественный фонд, развивает и продвигает органическое земледелие, которая очень важна для здорового питания в нынешних условиях. Наши услуги и деятельность ориентированы как на мужчин и женщин. Я считаю, что необходимо дальше развивать гендерные аспекты и аспекты питания в RAS, развивая сотрудничество между организациями, странами и регионами. В этом отношении Рабочая Группа по вопросам питания GFRAS может играть роль фасилитатора и координатора сотрудничества в этих вопросах.

В 2015 году ИФОАМ запускает проект «Питание в Горных Агроэкосистемах» среди горных стран Перу, Эфиопия, Пакистан, Непал, Кыргызстан. Данный проект в Кыргызстане реализовывается при координации Общественного фонда «Bio Service» в консорциуме с Федерацией Органического Движения "Bio-KG" (на национальном уровне) и СКС Жалал-Абад (на областном уровне) с помощью сельских консультантов. В рамках проекта реализовывается 26 микро вмешательств,чувствительных к питанию в Кыргызстане и эти микро проекты объединены в 7 кластеров. Для обмена знаниями, опытами и получения ответа от разных экспертов, участников существует платформа [https://maan.ifoam.bio](https://maan.ifoam.bio/). Для получения подробной информации Вы сможете посетить данную платформу.

English version

Each RAS organization introducing proven, also now how technologies for cultivating crops, managing livestock in households, contributes to improving access to food and indirectly or directly in promoting gender equality and improving nutrition. The countries of Central Asia and the South Caucasus, for example, Kyrgyzstan, having favorable natural and climatic conditions, have a huge potential for providing food for the population. In addition, the rich historical experience of countries in the agricultural sector, which is intertwined with social and cultural aspects, the current tasks of socio-economic development, means that the RASs should also take into account gender aspects in rural areas. Knowledge dissemination services and rural consulting activities should widely offer and expand technologies and practices that are equally accessible to both men and women. Our organization "Bio Service" Public Foundation is a Public Foundation that develops and promotes organic farming, which is very important for healthy nutrition in the current conditions. Our services and activities are focused on both men and women. I believe that it is necessary to further develop gender aspects and aspects of nutrition in the RAS, developing cooperation between organizations, countries and regions. In this regard, the GFRAS Working Group on Nutrition can play the role of facilitator and coordinator of cooperation in these matters.

In 2015, IFOAM launched the project "Nutrition in Mountain Agroecosystems" among the mountain countries of Peru, Ethiopia, Pakistan, Nepal, Kyrgyzstan. This project in Kyrgyzstan is being implemented with the coordination of the Public Foundation "Bio Service" in a consortium with the Federation of Organic Movement "Bio-KG" (at national level) and RAS Jalal-Abad (at the province level) with the help of consultants. Totally, 26 nutrition sensitive micro-interventions implemented within the project in Kyrgyzstan and these micro projects are grouped into 7 clusters. To share knowledge, experiences and receive a response from different experts, participants have a platform [https://maan.ifoam.bio](https://maan.ifoam.bio/). For more information, you can visit this platform.

## Emile Houngbo, National University of Agriculture, Porto-Novo (UNA), Benin

Agricultural extension and advisory services (AEAS) are a good technique to inform and teach the farmers on the new technologies. AEAS bring information from a farmer to another. And then, the farmers could have good information on improved agricultural technologies and food security. AEAS are also supposed to make their best to contact separately female farmers and male farmers with specific information, if necessary. Say, AEAS are interesting means to build regularly the capacities of all the farmers, both men and women.

## Funmilayo Bosede Olajide, National Horticultural Institute, Nigeria

**Agricultural extension and advisory services should be highly involved in realizing gender equity and improving nutrition.** There are a lot of socio economic issues that could hinder utilization of nutrition education, an agricultural extension expert is needed for identification and appropriate solution. Agricultural extension personnel are trained in communication, psychology, human relation, administration and community development among others. They are equipped with the necessary communication strategies that could easily convince farm families because they understand the language of the farmers, In other words they are trained to interact with human beings.

Most agricultural intervention programmes spelt out gender equity in their programmes and want it implemented as such without a nutrition package, though nutrition education is often mentioned and researched into but supporting improved nutrition directly is not a common issue.

**Challenges:** Most agricultural institution are not really including improving the nutrition of farm families in their activities due to focus on mandates, improving productivity through transfer of technologies. Result of most nutrition research are on-shelf due to inadequate funding of research. Inadequate knowledge of necessary tools and collaboration between health and agricultural institution. Possible hijack of extension activities by non-professionals by playing down the role and strength of extension personnel. Rather than collaborating to achieve success, extension are often seen as threat. Non-involvement of AEAS in project where their expertise is needed especially in gender sensitive programmes is another challenge.

I think GFRAS should assist in blowing the trumpet on the underutilized capacity of AEAS. Capacity building programmes for AEAS and consciously including them in food security and nutrition programmes.

## Dr. Amanullah, Department of Agronomy, The University of Agriculture Peshawar, Pakistan

Agricultural extension and advisory services play an important role in realizing gender quality and improved nutrition in developing and underdeveloped countries where the majority of population and especially women are uneducated. Proper training of females in these countries regarding balanced nutrition is very important. The health of women is very low because of 6 to 10 are even more births to children. However the women are unaware of their own and their new born kids. I think the training of women is most important than men in these areas.

Thanks

Amanullah

## Amtul Waris, Indian Institute of Rice Research, India

I would like to share the following points.

Agricultural Extension and Advisory Services (AEAS) can play an important role in targeting gender equality and improved nutrition in the following manner:

* The women and men in the families need to be sensitized that the nutritional needs of girls are as important as boys, as in many communities girls are served less nutritious food compared to boys.
* Dietary diversity is to be stressed upon by providing a package of high quality seeds of easy to grow vegetables and fruit saplings. The children in the family need to be educated and motivated to nurture this patch of vegetables and fruit trees.
* The AEAS service providers need to have a dialogue with local schools to allocate a special session on nutrition education with emphasis on growing and eating locally available fruits and vegetables which are highly nutritious.

Regards and thanks,

Amtul Waris
Principal Scientist & Fulbright Fellow
ICAR-Indian Institute of Rice Research

## Kuruppacharil V. Peter, World Noni Research Foundation, India

The success of the green revolution in India is the harmony among agricultural scientists, scientific technologies including seeds and planting materials, availability of inputs like water, nutrients and electrical energy, remunerative prices to farmers, farmer-producer co-operatives and self-help groups including formation of all women farm labour armies and lately mechanization and value addition through products development. KRISHI BHAVANS at each village act as information kiosks, Krishi Vigyan Kendras one each in all the districts of India, ATIC (Agricultural Technology Information Centres), ATMA (Agriculture Technology Management Agency) to manage scientific information flow to farmers serving farmers with knowledge and materials. There are all women neighbourhoods providing farm labour in all the farming activities. There are over 75 State Agricultural Universities with separate Division of Extension. Division of Social Sciences in over 65 ICAR-Carntral Institutes provides scientific manpower at graduate and post graduate levels. Media both visual and print have come forward to reach information to grass root level farmers. There are many Non Government Organizations working for the farmers. Despite all the above efforts there are reports of farmers suicide due to debt, crop failure and natural calamities. In a country like India where over 1250 million mouths have to be fed, agriculture production is in cross roads. Gender concerns in agriculture are being addressed with an open mind. Many universities have established "CENTRE FOR GENDER CONCERNS" for research and extension purposes.

## Carlos Granado Fernandez, Universidad Politécnica de las Fuerzas Armadas, Venezuela

In my country Venezuela there is much work to do specifically in this area of gender inequality is not doing anything, women spend long hours queuing to buy regulated food and have left the countryside many live in neighborhoods close to the city and never return...

I hope this situation changes soon because there is a lot of malnutrition especially in children and the elderly. Greetings from Venezuela

Attachment:

<http://www.fao.org/fsnforum/sites/default/files/discussions/contributions/Presentaci%C3%B3n1.pdf>

## Joy Muller, Switzerland

I would suggest that more women are recruited as AEAS representatives. Their visibility when visiting farmers and discussion for solutions can change local perception on women and their capacity and bring a change to reduce gender inequality.

Furthermore, with ICT, AEAS can put together their observations at the community level, not only on agriculture, but also other related social determinants, such as poverty, nutrition, vulnerability of local population to climate change, etc. and share the data with local public authorities for analysis. The AEAS's presence can be an asset for bottom-up knowledge sharing to facilitate policy implementation fit into local context.

## Adewale Oparinde, HarvestPlus, United States of America

Over the years in Africa, Agricultural Extension and Advisory Services (AEAS) has been projected as a push model where the beneficiaries are the recipients and the service providers (NGOs or government) are the helpers. In such a philanthropic business model, incentives are not strong for effective participation and sustainability. Typically, farmers think of AEAS as an entitlement and consider the services to be a public good that they should have right to receive for free. Although there has been private sector involvement in AEAS provision, we are still behind because of (a) lack of adequate incentives for farm households to commit their own resources and (b) misconceptions about property right (farm households think they deserve to have it and not pay for it).

For AEAS to contribute significantly to gender equality and improve nutrition, the left and right sides of the equation need to be switched. Stronger economic incentives need to be built in for farm households. When there are stronger economic benefits (beyond those directly linked to the farm household's utilization of the services or products provided), there is a better chance that men and women are going to get more involved in AEAS. In our experience implementing biofortification programs in Nigeria, what we found out is that when we created entrepreneurs among the locals to be in the fore front of the AEAS provision in their communities, then we secure better participation and more local resource commitment. We created a concept called "Rural Facilitators" who are in addition to being a bulking agent are providing AEAS in their communities. We receive demand for food products from urban areas and then provided opportunity to the rural facilitators to access the database and fulfil the orders. This provides economic incentives to motivate the locals (both women and men) in helping provide nutrition education to farm households in their communities. Also, the fact that demand is constantly being created for their farm produce, farm households are motivated to produce more nutritious crops. This concept can significantly contribute to the process of behavioral change when supported with train-the-trainers program.

Getting the locals more involved economically in leading the AEAS provision has a potential in increasing the role of AEAS in contributing to gender equality and nutrition.

## Eileen Omosa, We Grow Ideas, Canada

The role of extension and advisory services in realizing gender equality and improved nutrition.

Extension services have been an integral part of agricultural development in several African countries since independence. For example, in Kenya, many national development plans since the 1960s put emphasis on agriculture as the basis for industrial development. The way to enhance agricultural production was through a developed extension system that reached households in rural areas.

Though many of the extension services previously provided by government have now been privatized, the sector still has a role to play, whether through government departments, NGOs or private sector - at the end of the day the objective remains the same; how best to equip agricultural producers to achieve better harvests which in turn provide nutrition to individuals and groups.

One approach would be to learn from past extension projects. For example, one of the most notable challenge was the view that farmers were the legally recognized land holders and the traditionally recognized household heads = men. The end result was that extension officers focused more on finding and imparting knowledge to men within households, leaving out women who happen to be the majority of agricultural workers and the main providers of balanced diets to families. Subsequently, the current extension programs need to review the training curricular for agricultural trainees - to incorporate information on gender in African agriculture and household nutrition.

A similar focus on evaluation of past projects will lead to a new focus on other agricultural support areas such as technology, more so agricultural machinery - are they relevant, affordable and practical enough to be used by women? In the past, the majority of improved agricultural implements tended to be designed for men in terms of the required strength to handle the machinery. This will be one area where equity comes in - the current developers of agricultural technology put more emphasis on machinery for women and girls, otherwise we will continue to see them with the jembe while men are on tractors.

In relation to improved nutrition, there is need to consult more with women within rural households, where they are the majority of food providers and as a result developed knowledge on food items for a balanced diet. The objective will be to start from where they are, rather than where we want them to be. For example, if they still get most of their nutrients from indigenous vegetables and other foods, how best to equip agricultural extension people to use those familiar food items, rather than introduce a new food product that will be too new/foreign for many to adopt = is food cultural?

Once extension providers have a good idea on where women and men are as agricultural producers, it will be easier/practical to promote relevant seeds, food crops, agricultural machinery, information on harvesting/storage and consumption which will result in improved nutrition - people will consume proper nutrition once the food items are freely available.

How to incorporate children/students/youth into the new message for they are the agricultural producers, consumers and extension providers of tomorrow.

## Stanley Weeraratna, Rain Water Harvesting Forum, Sri Lanka

The extent to which AEAS should be involved

In some countries shifting cultivation was practiced some time ago and is still being practiced in many Asian countries. In a more settled form of agriculture, farmers cultivate small parcels of land permanently. A large proportion of food produced in Asia and Africa is by small-scale farmers or family farmers numbering around 500 million. They need access to information on better land predation methods, new seed/plant varieties, effective use of fertilizers, control of pests and diseases. AEAS need to facilitate these activities.

Simply providing access to know-how will not improve the productivity of small scale farmers because there are many other limiting factors such as lack of water for drinking and household activities, inadequate transport and infra-structure facilities, etc. Very often famers, mostly their family members, have to walk 1-2 km in search of water thereby wasting their time which otherwise would have been used for household activities and / or in the land. In view of the limitations AEAS need to be involved in planning/deciding what crops to grow, getting the infrastructure improved, marketing strategies, support rural communities to manage their natural resources more effectively etc. These may be done in collaboration with the other institutions such as Rural Development Division, Land Use Planning Divisions etc. operating at village level. Hence, Ag. Extension personnel should be involved in a holistic approach to development.

are the key actors in many activities related to development of the agriculture sector. They are involved in mainly in planting (e.g. transplanting rice) and harvesting (e.g. paddy/vegetables/fruits). They contribute to food security on a great way, both in their families and in society at large. This is especially true if family farming is considered, where family income depends on the combined efforts of its members. Issues related to health affect the rural population to a great extent. Malnutrition leads to various diseases such as tuberculosis which affects the rural population. . In many Asian countries Chronic Kidney Disease which is considered to be caused by low nutrition level, toxic compound/s in water also is a health problem especially among the rural population. It is the women in the families who have to face the burden when a family member/s are affected by a disease. A disease among a family member/s result in less time being spent by the woman in the family, for crop production and related activities. In general, extension staff is not adequately knowledgeable on the important aspects of nutrition and related diseases. Hence, GFRAS nutrition group need to promote knowledge of the extension staff on nutrition and nutrition related diseases.

Specific challenges I encountered -

based inequality against women is a common characteristic in many communities in Asia and Africa although they are the active labour force in rural areas. They suffer the most because of factors such as illiteracy, poor health partly due to malnutrition etc. Female agric. extension staff are unable to reach most of the farm families especially the women mainly because they live in inaccessible areas far away from village centers, and public transport is not frequently available. Hence they have to travel by foot or by bicycles/motor cycles. In my work involved in extension, I found that inadequate transport is a challenge.

Female extension staff needs to be given maternity leave when necessary. Very often replacements are not appointed due to financial and other issues and hence extension activities are affected to a great extent. This was also a challenge I encountered.

Examples of AEAS successfully addressing issues related to gender and nutrition-

a Consultant of PLAN, an INGO, I was instrumental in organizing and assisting a number women famer societies in Sri Lanka. A society in Kurunegala District in Sri Lanka was interested in carrying out work related to nutrition among the members. The society members were undecided on what crops to cultivate and I was able to assist in making them aware of the nutritionally desirable crops and also giving them the required information to purchase the other requirements. The active involvement with the stake holders made this programme a success.

In my work involved in the Poverty Alleviation Programme of the Govt. of Sri Lanka, home gardening was promoted with the collaboration of field staff. A large number of rural households took part in this programme. We were able to develop small enterprises with the involvement of the people in the villages, mainly women. These enterprises were involved in producing seeds and planting material, vegetative propagation, manufacturing organic fertilizers, bio pesticides etc. In this process it was possible to assist home-gardeners in obtaining necessary materials easily and also developing a few micro-enterprises in the village. Participatory discussions, to make the villagers aware of nutrition, what crops to cultivate, proper processing of the produce, biological control of pests and diseases, arranging markets, led to the success of this programme. Getting the health officers, agricultural extension officers in the village to take part in the participatory discussion was found to be advantageous.

Role of GFRAS –

GFRAS has an important role to play by helping AEAS to implement effective programs to assist woman organizations to obtain appropriate education on matters related to health and nutrition. Implementation of strategies to help AEAS need to be carried out at national level depending on the actual problems in the specific area. The intensity of the effects of the nutrition factors which influence sustainable agricultural production may differ within the same country. For example Chronic Kidney disease, related to nutrition is reported only in some parts of India, and Sri Lanka. Hence more emphasis needs to be given to control this disease in these areas. It would be advantageous for GFRAS to liaise with the relevant state and private sector organizations and NGOs as the case may be. It would be more effective if there is a coordinator in each large country, similar to UNDP which will make such liaison more effective.

## Valentine Obiasogu, University of Ibadan & The International Association of Students in Agriculture and Related Sciences, IITA agripreneur, Nigeria

Currently, the role of AEAS in realizing gender equality is not assured. While everything is tilted towards privatization, key players loot government funds. Institutions like universities are seen performing most efficiently. Federal ministries and parastatals are inconsistent due to lack of sustainability. In conclusion, the role AEAS plays cannot be achieved until there is a rigid policy framework.

## Frank Eyhorn, HELVETAS Swiss Intercooperation, Switzerland

Agricultural extension and advisory services (AEAS) as well as community workers can be key agents for the delivery of nutrition knowledge and practices to rural communities. They reach and interact closely with farmers or women groups in different settings and can sensitize them on nutrition sensitive agriculture and diets. Furthermore, they can facilitate local initiatives and facilitate coordination among local actors related to improving nutrition. In the [Nutrition and Mountain Agroecosystems](http://www.ifoam.bio/en/nutrition-mountain-agro-ecosystems)Project in Ethiopia, Nepal, Pakistan, Kyrgyzstan and Peru, funded by the Swiss Agency for Development Cooperation (SDC), the following initiatives implemented by AEAS proved to be particularly useful:

1. awareness raising on nutrition (curricula, school gardens, preparing traditional dishes);
2. sustainable small-scale farming (organic farming, compost making, nutrition gardens);
3. diversification of home-based food production (fruit and vegetable nurseries, promoting legumes, low-cost greenhouses);
4. small-scale animal husbandry (rearing poultry, goats, fish, guinea pigs; honey production);
5. post-harvest handling (processing at household level, low-cost drying, safe food handling, food preservation).

This experience shows that diversifying farms in an ecological way helps to increase farm incomes, strengthen the role of women, improve family health, protect natural resources and increase resilience to market fluctuations and climate change. Producing and selling a variety of nutritious products not only improves the nutritional situation of local communities, but also provides business opportunities for farmers (particularly for women), agribusinesses, processors, traders, retailers and other stakeholders. In addition, it serves local policy goals related to improving health, alleviating rural poverty and reducing environmental impact. AEAS can therefor play a convening and facilitating role to bring the different stakeholders (farmers and farmer groups, municipalities and district authorities, businesses and civil society organizations) together to jointly advance nutrition sensitive agriculture practices and value chains, and to raise consumer awareness.

For more details, please refer to the attached short paper prepared for the Sustainable Food Systems Program's Technical Workshop on Sustainable diets in the context of sustainable food systems.

Attachment:

<http://www.fao.org/fsnforum/sites/default/files/discussions/contributions/NMA%20preliminary%20conclusions.docx>

## Mahesh Chander, Indian Veterinary Research Institute, India (fifth contribution)

AEAS should change their focus from always selecting head of the households (usually eldest male member of the family) to women members of family as contact to share information.

In meetings & training programmes, women participation may be ensured at least 50 per cent, Husbands may be asked to accompany their wives to meetings & training on agricultural issues.

Whole family approach may be followed in imparting training on nutrition, since all members of the family should understand the importance of nutrition.

Women based Self Help Groups (SHGs) may be formed, supported and engaged in nutrition education

Small animal rearing, backyard poultry keeping by women play important role in household nutritional security and small savings. The AEAS can technically empower women on small scale livestock and poultry rearing.

Young women can be targeted to expose them to agripreneurial ventures on value addition and food processing activities, wherein, they not only ensure better nutrition but also get the opportunity to generate some income. <http://defindia.org/young-women-see-new-window-of-opportunities/>

The AEAS should promote e-literacy/Digital literacy among women, ICT tools including smartphones can be a good tools to empower women on nutrition aspects because women find a friend in smartphones. <http://defindia.org/women-find-a-friend-in-smartphones/>

## Durlave Roy, Northern Agro Services Ltd, Bangladesh

YPARD Bangladesh initiates Agriculture for Nutrition (Ag4N) network

YPARD Bangladesh with the support from INGENAES, (Integrating Gender and Nutrition within Agricultural Extension Services), a USAID funded project, is taking up the initiative to establish a National Network on Agriculture for Nutrition (Ag4N) for the scientists, experts, researchers, students and young professionals who are working on nutrition-based agriculture in the country. This platform would be helping in networking and sharing information and knowledge that might be a great support for identifying the challenges of food and nutritional security in the country and developing sustainable solutions for it as well. Moreover, this networking community would be a focal platform for cooperating national development activities through participation in policy level dialogues while providing an opportunity for youth to contribute with innovative ideas.

Purpose of the agriculture for nutrition platform in Bangladesh:

- To inspire youth engaged learn to share.

- Cultivate leadership, create opportunity for leadership.

- Create a platform for nutrition based networking.

- Knowledge and technology dissemination.

- Knowledge sharing and networking.

- Raising awareness about food security and nutrition.

- To involved multi background young people.

- To disseminate what we have for Ag 4 N.

- To encourage young people engage.

- To promote nutrition sensitive knowledge to mass people.

- To incorporate civil society and political persons to the table.

- To promote WASH-Nutrition to mass people.

- To get small research funding from Ypard or associated institutions.

- Youth involvement an nutrition based agriculture.

- Creating awareness about food nutrition to the community.

- Sharing knowledge and resources to take initiative to future nutrition management in

Bangladesh.

- To share knowledge and exchange idea among widen audiences to achieves SDG through

sustainable agri intensification via climate smart crop production (a plant needs organic

fertilizer for it to grow in a balanced way).

- To build a network with involvement of stakeholders to ensure nutritional security.

- Engagement with GO, NGO, Private sector of professional for agriculture based nutrition

movement making knowledge sharing platform.

- Thinking and Talking, Change minds, new ways.

## Mohammad Mahbubur Rahman, YPARD Bangladesh, Bangladesh

At present, there is an enormous opportunity for agricultural extension and advisory services (AEAS) for assuring gender equality, food and nutrition security, health and to achieve a range of rural development goals such as poverty reduction, preservation of the natural resource base, and so on which will ultimately contribute to achieving sustainable development goals through promotion of food security and nutrition. However, AEAS can help to ensure equal access to food and nutrition to both women and men and therefore, ensure gender equality. It can enable female farmers to understand, mitigate and adapt to new climate change challenges; support to manage their natural resources more effectively; assist them to make optimal use of their available resources to ensure access to food and income for their families. Rural extension services may also address rural woman's livelihood needs related to better nutrition, deal with the impacts of natural hazards, local institutional development (e.g. Cooperatives, women’s associations) and boosting job creation.

In addition, the extension services can help small women farm households, particularly among the rural poor women, improve their livelihoods by i) increasing their family based farm income, ii) achieving household food security and nutrition, iii) organizing into women leaded producer groups (i.e., empowerment), and iv) increasing their access to health services and education for their children.

## Shahla Salah, YPARD, Pakistan

Greetings from YPARD Pakistan

Many thanks for this very informative and interesting forum.

Apart from Gender inequality, food security along with the nutrition deficiency is one of the major issue around the world which is interlinked with the climatic changes. Due to climatic changes agriculture lands are getting worse drought condition which is ultimately affected the production size and negatively impacted the income of the rural households.

Therefore, the role of agriculture extension and International organization to facilitating the development growth programs is really remarkable, but somewhere still there is need to improve the quality of work at the end of agriculture extensions, because so far it has been observed that the research is exactly not even delivered to farmers to be implemented the same for agriculture growth. Although we have great research work, but need to work on field demonstration program for farmers’ skill enhancement.

Farmers are already in great stress due to rising price of inputs supplies [Inputs material] in the market which is the essential part for agriculture growth and better nutrition value of foods by having a fertile land due to soil quality. Low production high cost of cultivation and low market price returns are the major issues for developing and under-developing countries. It has been stated by many young entrepreneurs that bad infrastructure is the major causes in increasing the cost of transportation of goods in remote areas which is ultimately double the prices of inputs supply in rural markets. Subsidies on inputs material is not actually delivered to farmers which causes to decrease their income and by this the low foods consumption has been recorded in rural areas. If the system may not be developed and monitored appropriately then the ratio of malnutrition may not be overcome anyhow. It should be in the consideration of policy makers and regulatory authority to take necessary actions and facilitate the farmers by providing price support program and field demonstrations.

Quality and certified inputs supply is also one of the major concerned, farmers have not enough skills to recognize the certified seeds and pesticides which is not harmful in terms of human health and crops nutrient value. While due to low seed germination the cost is usually increasing. So with the collaboration regulatory authority and policy makers the multistakeholders program will help to resolve the many issues and help the rural people to get the better livelihoods by having nutritious foods. Farmers’ community system will enhance the farmers’ skills by involving youth especially young women to participate in growth program and balance the gender equality in the country.

Women are playing very wide role in agriculture production and livestock, they will be the great assets to increase the production and achieve the SDGs goals in a faster track. Their skills enhancement will reduce the post-harvest losses, because they are the main source of harvesting agriculture crops in rural areas. Women are playing decisive role in livestock production from handling the cattle in their farms till milk production and strengthening the supply of milk in a great manners, there is need to encourage them appreciate them and empower them. They are the noblest assets for economy growth.

Kind Regards, Shahla Salah

Country Representative

YPARD Pakistan

## Mamiya Binte Ahsan, Agricultural Information Institute, Chinese Academy of Agriculture Sciences, Bangladesh

Agriculture extension and agriculture advisory (AEAS) connect both gender equality and nutrition knowledge together. Working directly with farmers in different settings the knowledge of nutrition and gender coordination became healthier in rural areas. It’s now common in Bangladesh that women are equally working in agriculture sector keeping pace with men but they are facing dominance to obtain equal opportunities like men. These experience helps farmers for better incomes, strengthen the role of women, improve family health and also increases the nutrition knowledge. For more agriculture productivity, information and communication technology are now expanding their technology for the betterment of agriculture. With the help of agriculture extension now farmers can connect with the new technologies and get up to date with all the important and valuable information in such short time.

* Insisting youth involvement by engaging them in practical work.
* Create more nutrition based knowledge information through technologies.
* Sharing knowledge about information and communication technology.
* Promote a nutrition based awareness knowledge.
* Exchange the ideas about new technology and food nutrition among youth.

Women are more focused in agriculture development. Women empowerment need to start from the root level and agriculture takes this one step ahead. On the other hand, women are more conscious and aware about promoting nutrition knowledge in the family.

## Dinesh Panday, YPARD, Nepal

AEAS as well as social development workers need to keep youth’s role at center of planning in gender equality and improved nutrition. We know that education is important, however, there are lots of things missing in education in terms of soft skills (like, interpersonal skills). If a young professional has lack of competency, we cannot think that s/he will be able to deliver right message to targeted audience or how others can be benefited?

Through YPARD Nepal, in 2014, we organized “YPARD Nepal Family Farming Photo Contest”- a national level competition with the goal of giving a stronger voice to family farmers as well as the recognition they deserve for their key role in the construction of a food secured future. More than 200 submissions were received from young farmers by depicting agricultural landscapes.

In 2015, about 40 young people were actively engaged in a workshop to provide a useful starting point to expand emerging practices through sustainable intensification and creative marketing. Later in 2016, we started “EduMala Mentoring Program” where we discussed about the importance of underutilized food crops, food processing methods, food and dairy entrepreneurship. We believe, those activities are continuously helping young people in access to resources and capacity building, exchange of information and networking, and promoting food and agriculture among them. Details <https://www.researchgate.net/publication/314312114_Promoting_Food_and_Nutritional_Values_among_Nepalese_Young_Minds>

## Dick Tinsley, Colorado State University, United States of America (second contribution)

I think this forum is scheduled to wrap up tomorrow so allow me a follow-up comment to my previous comment.

It looks like my comment, which was submitted at the request of one of the moderators, has been orphaned, with no follow-up commentary. Instead the discussion continues to endorse and promote the expansion of extension services without regard to the funding available to recruit extension personnel or provide the operational needs that would allow them to be effective and reach the majority of the intended beneficiaries. Please as you promote expanded role of civil services make certain the funding is there or you will simply squander limited tax revenue funds.

Also, as I commented previously I think you need to review the message being send to assure that it is appropriate enough the beneficiaries can appreciate it. For nutrition I suggested that what improved nutrition being promoted must be affordable or producible by the beneficiaries, particularly if they are expected to engage in heavy manual labor requiring exerting 4000 kcal/day or more.

Please allow me to return to my agronomic base, the historic base for most extension programs, and challenge if the agronomic message is really suitable for the smallholder beneficiaries. There is a major problem in the agronomic technology development and transfer process. This is what I rather provocatively call the genocide oversight. Sounds horrible but unfortunately too close to the truth. Agronomic technology is typically developed through small plot research, perhaps plots only 4x6 m. This does an excellent job of determining the environmental physical potential of an area. However, it says nothing about what it will take to expand that small plot result across the rest of the field, farm or smallholder community. It just assumes it is not a problem. Basically, what is being done for the past 50 years is demanding that a poor hungry exhausted farmer, who is lucky to have access to 2000 kcal/day that will allow him to only work 3 or 4 limited diligent hours per day, put it a full day of effort requiring over 4000 kcal as mentioned above. That doesn’t work and is the reason for my provocative label of “genocide oversight”. The net result is that it takes up to eight weeks to get basic crop establishment, and rendering the wonderful research results null and void. Isn’t it a little absurd and perhaps a little arrogant to expect the hungry smallholders to be as effective in managing their farm in the same manner as the nearly unlimited resources of an experiment station or demonstration plot? Who within the technology development and dissemination process is responsible to determine the operational requirements, labor access to machinery, etc. to extend the small plot demonstration to the rest of the farm? Then determine if that labor is available and if not what are the rational compromises the farmers has to make in adjusting the research/demonstration results to their limited operational base. Perhaps they have already optimized the research result to their 8 week crop establishment time. Until this issue is address won’t the extension message continue to mostly badger farmers on information they have a good knowledge of but not the means to take advantage of. Please review the following webpage:

<http://webdoc.agsci.colostate.edu/smallholderagriculture/OperationalFeasibility.pdf>

Will this hold for nutrition promotions as well as agronomic promotions?

## Fardous Mohammad Safiul Azam, University of Development Alternative, YPARD Bangladesh, Bangladesh

There is no doubt that AEAS can accelerate the gender equality and food and nutritional security. As per this online discussion: 1. other than  providing and facilitating access to knowledge, information and technologies,  AEAS can facilitate transfer of agricultural subsidies that include fertilizers, seeds, tools and machineries, loans, money, pesticides, etc. like WeChat Apps in China as well as online marketing of farm products and law supports in grass-root communities; 2. limited understanding of nutrition coupled with ineffective nutrition training and awareness, unclear organizational mandates, lack of interest  and resource limitations, gender bias in EAS, lack of joint planning and dialogue at all levels, lack of triangle attachment of nutritionist, gender specialist and EAS experts during policy making; 3. cultural and traditional barrier to adopt new and improved nutritional balanced diet as well as recipes by rural families.

The role and main activities should be of a global forum such as the GFRAS Nutrition Working Group:

1. Identify local, cultural and religious constrains on gender equality and find local solutions with local communities, local and religious leaders through awareness.

2. Promote nutrition and health clubs in school, universities and localities.

3. Find young minds and youth think tanks, arrange workshop, training for them on nutrition-sensitive social movement.

4. Improvise national level policy to encourage nutrition-sensitive family farming.

5. Create tools and campaigning materials for nutrition awareness among school children and develop materials for family workshop on gender-sensitivity and nutritional diet. Like others, a successful example is ‘A New Way to Eat’ is setting out to change the way Chinese kids eat through China’s first food education program built to integrate nutrition and sustainability (<http://www.juccce.org/eat>).

6. Engage young professionals/body within the working group to generate new ideas through empowering youths for achieving long-term outcomes.

Among the major constrains for youth empowerment in AEAS, lack of modernization and technology in-friendly methods and process is in the top. Youths of 21st century is more addicted to modern devices but in most developing countries AEAS is yet not fully integrated with high-tech devices. ‘The more you improvise the AEAS with high-tech, the more youth you can involve’. In second, policy makers and AEAS staffs in several cases are not aware to utilize youths in AEAS actions, like engaging local youth clubs, sports clubs, voluntary clubs, youth libraries, science clubs, photography clubs, etc. and developing nutrition clubs for not only promotion of gender equality and nutrition-sensitive farming but also balanced diet. Integrating local, national and regional youth bodies, clubs, NGOs could influence and enhance nutrition-sensitive movement in grass-root level.

Keeping in mind to empower youths, both INGENAES and YPARD Bangladesh are collaborating to improve skills of young professionals and mentoring them. The YPARD members from both Bangladesh and Nepal have joined in training and workshops organized by INGENAES on ‘Addressing Gender Issues in Agricultural Value Chains’, ‘Addressing gender issues in technology design, use, and dissemination’; field visits  and participation at the Regional Symposium on Integration Nutrition and Gender in Agri Extension’. Suggested reading about these events are, as blog posts:

1. [cross talk between gender nutrition and agriculture extension](http://www.ypard.net/2017-april-6/learning-sharing-cross-talk-between-gender-nutrition-and-agriculture-extension)

2. [networking between youth ICT and extension better agriculture](http://www.ypard.net/2017-march-30/networking-between-youth-ict-and-extension-better-agriculture)

3. [Regional symposium to scale up nutrition integration in agricultural extension](http://www.ypard.net/2017-march-15/regional-symposium-scale-nutrition-integration-agricultural-extension)

4. [YPARD Nepal- Steps in Capacity Building Process](http://www.ypard.net/2016-july-29/ypard-nepal-steps-capacity-building-process)

5. [YPARD Nepal Team on Nutrition Workshop](http://www.ypard.net/2016-july-23/ypard-nepal-team-nutrition-workshop-0)

After more than one year of partnering, INGENAES and YPARD Bangladesh has started to setting up a national network on Agriculture for Nutrition (Ag4N) for the scientists, experts, researchers, students and young professionals who are working on nutrition-based agriculture in Bangladesh through a workshop in last May 2017 where professionals from National Agricultural Research System (NARS) and Bangladesh Agricultural University, She-e-Bangla Agricultural University, Department of Agricultural Extension and from other private, NGOs, institutes/universities had participated. The suggestions from the workshop are as follows:

1. Knowledge Creation, Knowledge Dissemination, Knowledge Updating, Knowledge Conservation by the network.
2. Recognition of best activists from young professionals.
3. Inter-university competition to showcase ideas and accomplishments.
4. Promotion of the platform through social media and other communications
5. Increase participation by individual channels.
6. Establish university based hubs and make linkages.
7. A network of YPARD units can be created within different organizations/institutions
8. Provide publication opportunities.
9. Organize workshops, conferences, trainings
10. Creating cross-cutting research opportunities
11. Provide access to contents to users & publication opportunities
12. Youth leadership development programs
13. Discussion forums with young students & professionals
14. The framework to build this network and the structure, principles and organogram were also proposed and discussed by the participants.

 (suggested reading, blog post: [YPARD Bangladesh initiates Agriculture for Nutrition (Ag4N) network](http://www.ypard.net/2017-june-8/ypard-bangladesh-initiates-agriculture-nutrition-ag4n-network))

## Akinremi Julian, Fourteen Farms, Local Representative YPARD, Nigeria

What Role can Agricultural Extension and Advisory Services play in realizing gender equality and improved nutrition.

My View

Knowledge is POWER and Technology is key to improve quality and minimize cost. Improved quality brought about by innovation can open doors for profit maximization which would create room for development for the farmer and boost the economy. Thereby upgrading the female farmer and empowering her to produce more quality agric materials.

We know that Nigerian women comprise the largest percentage of workforce in the agric sector ([agronigeria.com.ng](http://agronigeria.com.ng/)). And their income level is lower than men due to poor access to facilities, gender gap and the required support required for them to access land and cultivate larger portions using technology and subsidized farm inputs.

And in Africa the case isn't different, but lack of access to fertilizer, training, funds and labour have made it impossible for Women to match up to Men in same self field on the food production and processing chain.

Extension and advisory services would not only create room for empowerment for Women (gender equality) but also increase the yield and quality of agric materials produced by these Women and other smallholder farms.

A publication from [worldbank.org](http://worldbank.org/) makes us understand that Women provide 60-80 percent of the labor on farms in some countries although the world percentage is quoted to be lower than 50%. I know that 80% of farm products in Nigeria are transported from farm settlements to markets by Women, who go through the stress of bringing agric materials to the market. whereby some have to sit on open trucks for hours, sleep over in odd places and sit by the road under the sun while the drivers fix the battered fully loaded trucks. In some cases they get to the market with half spoilt goods. In other words they undertake 60-90% of agricultural marketing as noted by [agronigeria.com.ng](http://agronigeria.com.ng/)

Extension and advisory services can inform women about opportunity open for farmland ownership, ease of access to funds for dry season farming, educate them on the formation of clusters and cooperatives that would enable them access government subsidized seeds, manure, pesticides, fertilizers etc.

Extension and Advisory service agents can also make them understand that they can increase their income if the employ labour and increase there production using best methods to ensure increased yield. They would educated them on how Cooperative and clusters, information on new farming methodologies and harvest/storage techniques matched with same focus and commitment used overtime would increase the quantity and improve the quality of agric materials that would be produced by them and attract international firms and open channels for off takers.

In addition Extension and advisory services would encourage women to invest in agriculture, we must note that the more funds available to poor farmers and other stake holders in the agric sector the better the yield and the better the storage facilities amongst others.

A number of farmers still do not know about new varieties of seeds (improved seeds), they do not understand know that government initiatives have been setup to curb poor harvest and reduce farm production costs. A lot of women still use obsolete methods to process palm oil, when we have lots of funds specially set aside to support Women in agriculture but lack of knowhow and methods to apply and access these funds have made Women unable to match Men in terms of yield. Extension and Advisory services would go a long way to curb these issues and improve nutrition by informing them of open channels for match their numbers with output.

Furthermore Extension and Advisory services should setup workshops, seminars, trainings and boot camps to educate Women on how to carry out online sales, how to have groups in various settlements, how to access labour, farm support solutions (rent tractors for clearing, use cultivators/plows/ridges to carry out pre planting operations), improved variety of seeds, fertilizer and connect with major firms for off-taker agreements.

1. Imperative to note that the desire to educate the Women is good but the patience and tact to listen to them, understand their challenges and proffer solutions is much more important and the task is on the shoulders of Extension and Advisory Service Agents.

Also we must note that the challenge of youth participation in agriculture is one that needs fool prove correction approach, 80% of agric materials produced in Africa comes from small holder farms, most of these farms are managed by Women. Educating and empowering this Women would improve and increase yield. The average age of farmers in Africa is currently pegged at 60years despite the fact that fact 60% of Africa's population is under 24years of age ([www.un.org](http://www.un.org/)). The Extension and Advisory Service Agents need to have prepare to encourage and educate the youths, In Nigeria for example children of farmers now work as commercial bike riders and hawkers in major towns, farming settlements are grossly depopulated, the old time farmers need to be taught new methods, serious and energetic youth farmers need to be supported, young stars need to be taught the benefits of pursuing a career in Agriculture at an early stage and food processing should be made more lucrative for local investors by improving road networks to farms, improving power supply to agro processing firms, providing funds and know how for waste recycling etc.

A lot needs to be done to realize gender equality and improve nutrition and the steps stated above can go a long way to kick start the process and sustain it.

Akinremi Julian
Agripreneur, Food, Agricultural and Environmental Engineer, Agribusiness Consultant
CEO Fourteen Farms

## Philip Ifejika, NIFFR, Nigeria

I agree AEAS have important role to play towards gender equality and nutrition security through capacity building, facilitation, demonstrations, knowledge and information sharing on gender roles and responsibilities, best practices on nutrition, platforms and networks for advocacy, linkages to institutions and other actors in the value chain. I strongly suggest review of current curriculum to reflect contemporary development issues, specialization, and acquisition of relevant skills.

## Margaret Koyenikan, University of Benin, Benin City, Nigeria

WHAT ROLE CAN AGRICULTURAL EXTENSION AND ADVISORY SERVICES PLAY IN REALIZING GENDER EQUALITY AND IMPROVED NUTRITION

Margaret J. Koyenikan
Department of Agricultural Economics and Extension services,
University of Benin, PMB 5114,
Benin-City, Nigeria.

Agricultural Extension and Advisory Services (AEAS) are expected to address issues related to agriculture and rural development. Gender and nutrition are among the several thematic areas to address in order to achieve better living standard for the people. The principles of Agricultural Extension include comprehensiveness in nature and involvement of all the family members which relate to the discussion point. Gender affects access to production resources and level of involvement in decision making which could tell on nutritional status of typical African household. The effect of nutrition on physical, mental and social status of people could be obvious while gender equality issue in development is yet to be fully accepted even by practitioners. In Nigeria, extension service is still largely public sector-driven and unified. However, the following are suggested:

AEAS need to disseminate information and technologies that can change attitude, knowledge and skills of the people on gender and nutrition.
They need to apply scientific research and knowledge to agriculture and home management practices, educate farming families on the need and benefit of adoption.
Facilitate needs assessment and capacity building at community level.

To play these roles effectively, AEAS practitioners need capacity building as well for competencies in communication, human and leadership development and programme planning.

## Atinuke Lebile, SheAgric Initiative, YPARD, Nigeria

Agricultural extension can help in bridging the gap between agriculture and health through nutrition delivery.

Agricultural extension can employ information and communication (ICT) tools in nutrition delivery and this is an area that women can really play a critical role. ICT tools can be used in technology transfer which makes farmers more productive and ensures that access to up to date information on nutrition as it affects localities is more efficient and the dissemination methodologies are location specific.
In Oyo state, Nigeria nutrition delivery is facilitated by the Agricultural development Agency through their desk officer Mr Ajani who oversees the activities of extension workers and empowers them regularly with up to date information courtesy HarvestPlus Nigeria. This is an example that can be replicated.
Women have more accurate information as regards nutrition for households and as such, mainstreaming household information through women is key to developing a sustainable food security network.

## Pride Ebile, University of Hohenheim, Germany

I wish to send a small contribution on the topic.
I am using the case study of an ongoing project as an example.
I have just given a brief background of the project, and the role the project plays when it comes to gender.

Please see below.

Kind Regards,
Pride Ebile

**What role can agricultural extension and advisory services play in realizing gender equality and improved nutrition?**

**Case Study: Eco-Sustainable Gardens: Empowering Minority Mbororo Women**

1. **Background:**

This is an ongoing project in the North West Region of Cameroon. The project is focus on Mbororo Minority women. The Mbororo people are a minority group in Cameroon with the Nomadic and semi-nomadic lifestyle. With climate change (longer dry season) challenges, the men have to travel far to graze the cattle, living the women behind. This make the women and children very vulnerable because they depend on their men (food insecurity and nutritional insecurity).

This project focuses on improving Mbororo women’s economic as well as physical access to nutritious food. It aims to employ an innovative approach to upland farming in establishing an economically viable, eco-friendly gardening system for the Mbororo women of the North West Region of Cameroon. This gardening system makes use of cattle manure, an otherwise wasted resource which could also be potentially harmful to the environment in that it could be a pollutant to streams and also a source of greenhouse gases emissions if not managed properly.

**In accordance with the design of the project, three classes of crops were deliberated and, adopted to help with some “Food Nutritional security pillars”.**

* **Economic Access to food (to be sold in the market)**: Pepper and Telfairia Occidentalis (fluted pumpkin) were adopted as economic or driver crops.
* **Micronutrient Needs (hidden hunger)**: Eggplant, Okra, and Amaranth were adopted for provision of micronutrients
* **Indigenous crop**: ‘Folere’ and ‘Caracachee’ were adopted.

Key to the project is sustainability (Financial, Managerial, and Environmental Sustainably), which is where the Agricultural extension and advisory services aspect of the projects falls. The projects employs 3 graduate, to work with the women, and each plays a strategic role in the management and running of the garden project.

* Agricultural engineer graduate: Foncham Linda
* Business management graduate: Kidio Iris
* And a native Mbororo graduate: Ramata Ramani

2. Gender role as agricultural extension and advisory services.

* **Reduce dependency of the women on their men**: This is through working together to build a market for the first group of the garden products (economic access to food).
* **Nutritional education**: Know what to eat and the importance of type of food helps with dietary diversity and thus micronutrient deficiency.
* **Social Network**: Bringing the gardens women together and linking them to the market women help empower both market women selling to products from the gardens and the minority women for these can easily relate and better understand the functioning of their partners.
* **Saving**: The AEAS plays a key role in helping them build the culture of saving money from the garden.

Contribution By:
Pride Ebile
Project Coordinator of Eco-Sustainable Gardens: Empowering Minority Mbororo Women  Research Associate Food Security Center of University of Hohenheim Stuttgart Germany.

## Dick Tinsley, Colorado State University, United States of America (third contribution)

May I attempt a historical perspective and question one of the basic premises of Extension programs. I think the cooperative extension system originated in the USA as a means of educating farmers living in isolation in remote areas. I think this goes back to the Homestead Act that provided each farm family a 1/4th section of land (1 mile sq.), or 160 ac (65 ha) with a homestead in the middle. The result was people averaged a half mile (0.8 km) from their nearest neighbor. Thus the extension program was set up to establish a clear documentable administrative link from the research/extension program to the individual farm family. Now when this is applied to developing countries and smallholder communities don't most people live in villages in easy contact with their neighbor. In this case is this documentable administrative link still necessary? Desirable perhaps but really necessary? Certainly the T & V (training and visit system) attempted this, but didn’t that fairly quickly become "talk and vanish"? Given the financial limits of most host countries, and the overly ideal message that beneficiaries most likely don't have the means to fully accommodate without some massive compromises as I mentioned earlier, Wouldn't it be more effective to look at mass media for to deliver the basic extension message, and then do some follow up to see how well it is received, the compromise people make to optimize the message to their individual situation?

Just something to think about.

Dick

## Mylene Rodríguez Leyton, Universidad Metropolitana de Barranquilla, Colombia

**Original contribution in Spanish**

Buenas tardes:

Apreciados integrantes del Foro, me permito enviar mi contribución a este foro:

* ¿En qué medida cree usted que los AEAS deberían involucrarse en un desarrollo más amplio, que vaya más allá de proporcionar y facilitar el acceso al conocimiento, la información y las tecnologías?

Los servicios de extensión y asesoría agraria (AEAS) deberían realizar un papel que genere mayor impacto, más allá de realizar actividades de capacitación donde suministran información y conocimientos, así como acceso a la tecnología pueden reorientarse a modelos de intervención que generen mayor impacto en el desarrollo de las familias y las comunidades rurales, considerando la equidad de género y el ejercicio de los derechos para los grupos más pobres y vulnerables, las mujeres especialmente aquellas que son cabezas de hogar, la población rural, las personas y comunidades víctimas de la violencia y el conflicto armado.

Esto significa un modelo menos asistencial y más centrado en el desarrollo lo cual implica el desarrollo de proyectos que inicia su intervención desde el conocimiento e identificación de las necesidades de las poblaciones y el planteamiento de soluciones o mejora a las mismas; los pequeños productores juegan un papel muy importante para alcanzar mejoras en la nutrición y la salud, promover la adaptación y la mitigación al cambio climático, construir resiliencia en las sociedades afectadas por conflictos y reducir las brechas de género.

Esto implica que las AEAS deberían desarrollar su labor bajo la perspectiva de sistemas alimentarios sostenibles para la seguridad alimentaria y nutricional y solo desde un enfoque en la disponibilidad de alimentos. Es decir deben tener un enfoque que permita articularse con el acceso, el consumo, el aprovechamiento biológico y la calidad e inocuidad de los alimentos, integración que debe realizarse desde las políticas públicas, planes, programas y proyectos.

* ¿Qué desafíos específicos ha encontrado que impiden a los AEAS hacer frente a las desigualdades de género y promover la nutrición?

 Algunos de los desafíos que impiden a las AEAS hacer frente a las desigualdades de género y promover la nutrición son la creencia que el trabajo agrícola es desarrollado principalmente por los hombres, la misma visión que las labores agrícolas se orientan solo a garantizar la disponibilidad de alimentos.

La falta de una visión holística de la alimentación y la nutrición, genera que se visualice la alimentación solo como la disponibilidad o solo como el consumo de alimentos, esta desarticulación se origina desde la formulación de las políticas públicas hasta la operacionalización de las mismas. Es así como las políticas de seguridad alimentaria y nutricional, consideran dentro de sus enfoques la equidad de género pero aunque hay una política de equidad de género fueron concebidas y operan independientes.

* ¿Conoce algún ejemplo de AEAS que haya abordado con éxito las desigualdades de género y apoyado mejores resultados nutricionales? ¿Qué factores, incluidos los enfoques y herramientas, específicos condujeron al éxito?

Hay algunos ejemplos en Bogotá, Colombia relacionados con el cultivo de las flores de exportación en la Sabana de Bogotá, el cual se considera un caso exitoso porque ha posicionado al país como el segundo exportador mundial de estos productos, lo que, a su vez, se ha traducido en una importante fuente de divisas y empleo.  Adicionalmente, el gremio floricultor ha adelantado programas ambientales y sociales en las zonas en donde hace presencia. Aunque no se ha medido el impacto, la generación de empleo en la mujer rural como partícipe de los cultivos de flores mejora sus niveles de ingresos y por lo tanto aumenta la calidad de vida y la seguridad alimentaria y nutricional de sus familias.

Así mismo en estas mismas zonas del país, se han desarrollado acciones que se reflejan en el mejoramiento de las condiciones de alimentación y nutrición como el establecimiento de granjas de seguridad alimentaria para mujeres cabeza de hogar, alimentación escolar e implementación del programa de complementación nutricional.

* ¿Cuál cree que debería ser el papel y las principales actividades de un foro global como el Grupo de Trabajo sobre Nutrición del GFRAS para ayudar a los AEAS a ser más sensibles al género y capaces de contribuir a mejorar la nutrición?

Algunas de las acciones del foro Global como el como el Grupo de Trabajo sobre Nutrición del GFRAS para ayudar a los AEAS, que pueden ser consideradas como prioritarias son:

Identificar, documentar, sistematizar y difundir experiencias exitosas.

Analizar lecciones aprendidas e identificar factores de éxito de las experiencias exitosas.

Realizar Investigaciones que conduzcan a la generación de nuevos conocimientos.

Trabajar proyectos orientados a mejorar de forma integral las capacidades y el liderazgo de las mujeres, especialmente las mujeres de bajos ingresos y de los sectores rurales.

En países como Colombia donde puede afirmarse que la gestión rural renace con el postconflicto más allá de diseñar políticas públicas se requiere tener en cuenta la territorialidad y el núcleo familiar en el desarrollo de la paz. “Las mujeres rurales tenemos hijos, marido; integrarlos a los programas sociales es fundamental”

Es necesaria la reconstrucción del tejido social en las zonas rurales de Colombia, así como un mayor esfuerzo de la institucionalidad para garantizarles a todas las mujeres rurales las condiciones necesarias para el ejercicio integral de sus derechos.

Se requiere una transformación estructural para hacer políticas públicas que involucren la participación efectiva de las mujeres rurales.

Desarrollar acciones para visibilizar la participación de la mujer y sus organizaciones sociales en la construcción de la paz territorial.

La garantía de los Derechos de la mujer, que incluyan el cuidado de la salud y la nutrición, el mejora

**English translation**

Good afternoon:

Dear Forum members, please find below my contribution to this discussion:

• To what extent do you think should AEAS be involved in broader development, going beyond providing and facilitating access to knowledge, information and technologies?

Agricultural extension and advisory services (AEAS) should play a more impactful role. Beyond conducting training activities through which they provide information and knowledge as well as access to technology, their approach could be refocused towards intervention models with a higher impact on the development of families and rural communities, considering gender equality and the exercise of rights for the poorest and most vulnerable groups: women, especially heads of household, rural population, and individuals and communities victims of violence and armed conflict.

This means the model should be more development-focused and less assistance-oriented, implementing projects that kick-off determining and identifying the population needs and putting forward solutions or improvements. Smallholders play a very important role in improving nutrition and health, promoting climate change adaptation and mitigation, building resilience in conflict-affected societies and reducing gender gaps.

Hence, AEAS should be working on sustainable food systems to improve food and nutritional security by focusing exclusively on food availability. That is to say, their approach should integrate food access, food consumption, biological utilization of food, and food quality and safety, through public policies, plans, programs and projects.

• What specific challenges have you encountered that hinder AEAS from addressing gender inequalities and promoting nutrition?

Some of the challenges that hinder AEAS from addressing gender inequalities and promoting nutrition are the belief that agricultural work is mainly undertaken by men and only focused on ensuring food availability.

Due to the lack of a holistic view of food and nutrition, they are only identified with food availability or food consumption. This misconception is rooted in the formulation and implementation of public policies. As an example, the gender equity policy and the food security and nutrition policies, addressing gender equity as well, were designed and implemented independently.

• Do you know any examples of AEAS successfully addressing gender inequalities and supporting improved nutrition outcomes? What factors, including specific approaches and tools, led to success?

One example is related to the cultivation of export flowers in the Bogotá Savanna, in Colombia.  It is considered a successful case because it has positioned the country as the second world exporter of these products, creating an important source of income and employment as a result. In addition, the floricultural union has implemented environmental and social programmes in its areas of action. Although the impact has not been measured, employing rural women in flower cultivation improves their income levels and therefore increases the quality of life and the food and nutritional security of their families.

Other initiatives have also been implemented in these same areas of the country, leading to improved food and nutrition: establishment of food security farms for female head of household, and implementation of school feeding and food supplementation programmes.

• What do you think the role and main activities should be of a global forum such as the GFRAS Nutrition Working Group in helping AEAS to become more gender-sensitive and able to contribute to improved nutrition?

Some of the priority activities that a global forum like the GFRAS Nutrition Working Group can undertake to support AEAS are:

Identify, document, classify and disseminate all the successful experiences.

Assess lessons learned and identify success factors of fruitful experiences.

Conduct research generating new knowledge.

Work on projects aimed at improving the skills and leadership of women, especially low-income women in rural areas.

In countries like Colombia, where rural management reawakens with post-conflict, beyond designing public policies, territoriality and households should be considered in the peace building process. “Rural women have children and husbands; integrating them in the social programmes is essential”.

Rebuilding the social structure in rural areas of Colombia is necessary. Institutions should also put more effort in guaranteeing the necessary conditions for rural women to fully exercise their rights.

A structural transformation is required to formulate public policies effectively engaging rural women.

Develop actions to make visible the participation of women and their social organizations in territorial peace building.

Guarantee women's rights, including health care and nutrition.

## Edye Kuyper, Hajnalka Petrics, Soniia David and Fatima Hachem, facilitators of the discussion

Dear Members,

As facilitators of this discussion, we are exceedingly grateful for the knowledgeable, astute, and diverse comments received thus far. We will do our best to be good stewards of the insights shared by using the GFRAS Nutrition Working Group as a platform for addressing needs and implementing suggestions.

The discussions highlighted the role AEAS can play not only technically in terms of addressing the specific constraints and needs of women farmers and providing skills, technologies and knowledge on nutrition-sensitive agriculture, but also their importance in coordinating and convening multiple stakeholders to advance and advocate for nutrition-sensitive agriculture and gender equality.

Some recommendations made by contributors for advancing these two agendas include: hiring more women advisors; ensuring that AEAS organizations and their staff are gender-sensitive; incorporating nutrition in the training curricula of rural advisors; engaging also men in nutrition education; involving the youth for generating innovation; enhancing the linkages between research and women’s and men’s reality; modernizing technology to reduce women’s work burden, and promoting policies that ensure rural advisory systems are gender- and nutrition-sensitive.

Kind regards,

*Hajnalka Petrics, Soniia David and Fatima Hachem, FAO*

*Edye Kuyper, INGENAES*

## Samuel Oluwafemi Ayanleye, YPARD, Nigeria

It's my pleasure to write this short piece on the title above, Nutrition intervention and Gender Equality are things that need serious attention for development. Food security has been defined as the process by which food gets to consumers in its safest form, from this it can be deduced that rural households are normally affected by food security hence the basis of other problems. Nutrition intervention will be very crucial for FSN as I am concerned because it will inform appropriate decision making as to tackle food security in rural households, it will not be a bad thing to make sure that an average person have access to one cup of milk and one or two meats per day. Furthermore, gender Equality is important in extension and advisory services because it will give both men and women that sense of belonging they need, extension should not be biased that is all the genders must be included in decision making process and even in recent times, the role of men and women working together is not negotiable when talking about sustainable solutions to problems.

Best Regards,
Samuel from Nigeria.

## Elisabeth Simelton, World Agroforestry Centre (ICRAF), Viet Nam

Dear FSN-members,

There is often a general belief that men can’t cook or do housework. We wanted to show than men can cook nutritious food - hence take care of the household when women go on training courses...

Together with the local Farmer’s Union, Youth Union and agriculture extension, we (ICRAF Vietnam) organized a cooking competition for men on the Vietnamese women’s day. We chose this day because normally the women are the ones who do performances for others. This time we thought they should enjoy themselves, watching their men competing for the MasterChef with other villages.

There were criteria for the competition can vary. We set a maximum cost, a meal to feed four, and only use local products. In this way we discovered the variety of what is grown in the village, that farmers normally forget to mention in household surveys. We published a bi-lingual cookbook with the favorite recipes from each village: <http://www.worldagroforestry.org/region/sea/publications/detail?pubID=4150>

We also organized nutrition awareness campaign for school children.

You can read more about the event in the blogs:

<http://blog.worldagroforestry.org/index.php/2015/11/04/farmer-master-chefs-reveal-the-colourful-diversity-of-food/>

<https://ccafs.cgiar.org/blog/men-cook-colourful-and-healthy-dishes-agroforestry-products#.WWS834iGPDc>

The cooking competition was part of CCAFS-funded projects on climate-smart agriculture and climate-smart villages.

More can certainly be done to improve it all, including the cookbook, however most important - get started! Overall the participants were happy and have been asking for another cooking competition. One point here was for women to have fun on Women’s Day – if we were to organize it all again, we would invite both women and men.

We look forward to see other examples of other gender-equal activities!

Elisabeth Simelton, PhD

## Mahesh Chander, Indian Veterinary Research Institute, India (sixth contribution)

Closing comment

Equal access to resources, services & employment for women farmers worldwide can increase farm yields up to 30%, so is true with gender equality and improved nutrition. The AEAS should set their goals to meet gender equality in its functioning then see the outcome in any aspect including nutrition. #genderequality #UNFAO40

It was stimulating & learning experience to join this discussion. Thank you!

## Gabor Figeczky, IFOAM – Organics International, Germany

Primarily, it is governments who shall provide support to all farmers from commercial through to subsistence farmers via AEAS with the emphasis on providing quality not quantity. Such an extension system should design appropriate mechanisms to cater to the needs and demands of resource-poor, particularly women farmers, remote area farmers, different ethnic and disadvantaged groups who are often the most food and nutrition insecure. Unfortunately state capacity in many countries is low and there are many local political imperatives at play pushing officials in policy directions that contradict the aims of development and poverty reduction. Governments and to some extent the private sector, target their extension and input resources to richer farmers and landowners, leading to the perception that they ignore the plight of the poor.

Hereby we share a couple of findings, approaches and opinion pieces which are based on our project ‘[Nutrition in Mountain Agro-ecosystems](http://www.ifoam.bio/en/nutrition-mountain-agro-ecosystems)’ (NMA) aiming to improve the sustainability and the diversity of diets in 5 countries: Ethiopia, Nepal, Pakistan, Kyrgyzstan and Peru by improving the access to sufficient nutritious food for and the resilience of rural communities in mountain regions.

The need for new sources of production will inevitably require AEAS to reach out to marginal farming communities and help strengthen farmer organizations to improve productivity and help them develop business skills, find market opportunities, and navigate modern market chains. An extension system suitable to meet the needs of farmers and farming communities in the twenty-first century should be conceived in the broader sense, than it has been in the past of merely being a provider of technical advice through lip service or word-of-mouth. It should coordinate and facilitate networking among public and private stakeholder institutions for research, education, inputs, credit, processing and marketing. Joint planning, implementation monitoring, impact assessment, and sharing in a project mode should be emphasized. This should be incorporated in the extension policy and strategy by the policy making body. Access to inputs and credit, and rural markets development are also crucial for effective extension service delivery. The better AEAS providers are connected with diverse stakeholders, the greater their potential is to offer multifunctional services.

In many countries, extension agents tend to have a relatively low education level and limited training in modern communication techniques. Continuous capacity development of AEAS providers is key for the quality service. Policies must provide the regulatory framework for (participatory) curricula development based on needs assessments, continuous in-service education, quality assurance and accreditation of AEAS providers. In order to play the role described above, they must embrace ICT in order to scale information services and extension operations to meet the needs of millions of smallholders. Part of the new extension approach must involve close cooperation among field agents, managers, and ICT service providers. The systems will require that farmers register with the e-systems and pay at least a part of the costs for information. They will also have to work with extension teams to gather routine data (e.g. weather, soil conditions), monitor pest and disease situations, and report information on costs and access to key inputs and services.

For better nutrition outcomes, extension services should shift the approach from specialist advisory services to the wholefarm approach within the context of district/regional level development plans.

Provision of education and advice must address the whole farm as a business, taking account of the objectives of the farming family.

It is also important that service providers consider the nutritional status of the farm family. All support services should provide advice on nutrition and should help families to foster the potential of their children through education and developing farm skills. In addition to helping highly vulnerable farmers improve their food and marketing targets, extension staff can also help them by supporting better risk and financial management.

There are quite a few countries where the development of farmers’ organizations is limited to the formation of farmers’ groups at the grassroots level and there is no central body to lobby on behalf of the farmers in general. AEAS with clients’ participation will empower farmers’ organizations to negotiate with service providing institutions and the government by giving feedback on the currently implemented programmes and expressing clients’ needs, priorities and demands for future programmes intervention. This will help reform the policy and make the extension service efficient, effective and sustainable. Thus, demand-driven local level food security needs and commercialization can be addressed through participatory extension development.

AEAS would benefit significantly from being better informed about the needs of farmers within specific value chains. Participatory extension service should emphasize value-chain development for achieving commercialization and competitiveness. AEAS can engage in adult learning and participatory methods to enable extension agents to work with farmers as equal partners rather than telling them what to do. Farmer-to-farmer approaches, local-or community-based extension approaches (sharing of information on improved agricultural practices or diets within their community) characterized by the use of para-professionals are also found to be an effective way to provide flexible and cost-effective services to resource-poor farmers in marginalized rural areas. For instance, the Mountain Agro-ecosystem Action Network ([MAAN](https://maan.ifoam.bio/)) established by the NMA project is a vibrant online platform where rural service providers and farmers can share their solutions and lessons learnt as well as discuss issues which might be relevant for the regional or national policy makers. Lead farmers can also be used to organize farmers into groups for knowledge exchange and for accessing inputs and services.

Resource use efficiency and environmental protection tend to remain low on the political agenda in rural areas which hinders any coordinated efforts to develop a coherent nutrient management strategy and policies to improve nutrient use efficiency by farmers. The extension system is poorly equipped with innovations in natural resources management and climate change. In many cases AEAS are particularly prone to neglecting ecological and social priorities (e.g. focus on short-term productivity increases through high input agriculture). Soil fertility management, water conservation technologies, agroforestry, quality control and certification, climate change adaptation and mitigation measures should form extension agenda in addition to agro-biodiversity conservation, promotion and use. It can be noted that both a lack of relevant regulation and publicly available monitoring data for ground and surface water quality, means that there are no ‘baselines’ against which to set advice and training for good farming practice.

In many parts of the world, farmers do not have good access to information on alternatives to industrialized agriculture because much of their advice comes from representatives of companies that sell both seeds and pesticides. Even the few independent agronomists struggle to get independent information and advice to pass on to farmers. Agro-ecological systems like organic agriculture entails diversifying production resulting in a more diverse and nutritious diet for the family. AEAS must be trained on ecological farming and on sharing this approach, and support the farmer-to-farmer sharing of ecological approaches.

Where chemical fertilizers are used, the economic optimum (profit maximising) fertilizer application rate is less than the agronomic optimum, as determined by the point at which diminishing marginal returns to increased fertilizer use match the incremental costs of that additional use. Farmers can be expected to aim to approximate this economic optimum, unless their behaviour is dominated by extension advice based on the agronomic optimum application rate. Private input suppliers should therefore be linked with research organisation and local extension agencies to support effective extension services delivery, i.e. private AEAS should be incorporated in the whole system and their results regularly monitored by the public AEAS.

In view of the serious health impacts on rural and urban communities of hazardous products and practice, awareness-raising and education on pesticide use and dangers must go beyond conventional extension activities to reach women and children in particular.

Although it is important to improve the means of sustainable production and raise productivity levels, farmers need to commit to ways they can improve their returns on investments. AEAS must find practical ways of re-orienting their efforts to programs that support market linkage and good business management.

Women still have limited land tenure rights and lack of access to farm inputs, equipment, and information. Women tend to have lower levels of education than men, which reduce their power level and ability to make decisions within their families and societies. Therefore, raising the productivity and returns of women farmers requires extension services directly targeted to them with well-defined gender and social equity indicators right at the beginning, monitored over time. It is important to understand the different roles and responsibilities of all family members (women/men, girls/boys) in the production, transformation and marketing process. The social and cultural contexts that affect differential rights and access to and control over productive resources require particular attention when providing AEAS. Care should be taken to not reinforce gender stereotypes and household roles. For instance, men are not necessarily the predominant gender involved in cash crops, as great variability in control and co-operation has been found. Working with entire rural communities (i.e. not only women) and raising men’s awareness of the benefits of gender equality for agricultural production helps to overcome resistance to the social change that gender-equitable extension might entail.

Via provision of professional training on gender issues, advisers can become models for gender-sensitive and participatory communication within farming communities.

It is important to train AEAS staff in gender-differentiated approaches and methodologies, to ensure that demand-led processes consider gender and to provide gender-sensitive arrangements for extension and training services (location, time, availability of on-site childcare services, etc.)

Female extension workers are often in a better position to help female small-scale farmers adapt and adopt innovations. Incentives can help motivate women to work as agricultural advisers. Current extension workers can be role models for career plans of young girls. Supporting internships for female students from agricultural colleges in extension offices and agricultural departments have proven a successful way to increase the number of women advisers.

Strategic partnerships between women’s organizations and government institutions can help to improve women’s land and resource access rights.

A results-based extension programme planning would be desirable in which objectives would be about women and child nutrition and women’s access to resources or their increased roles in management and marketing besides household income and sustainability such as reduced use of chemical inputs.

A complementary way to assure social equity and ecologically sound AEAS is the power of united consumers who demand and are ready to pay for nutritious, ecologically sustainable and fairly produced and traded products. Sensitising consumers to the benefits of social and ecological products is a significant means to strengthen private sector involvement in AEAS that benefits to poor agricultural producers in an ecological way.

## Jane Sherman, Nutrition education consultant, ex FAO, Italy

POST 1  PROBLEMS

Many thanks for opening this subject on the FSN Forum. Of course gender issues are critical, but as a food educator I’d like to focus mainly on nutrition, in particular the needs for different kinds of food knowledge, motivation, action and training.  Since it is rather long, I have divided it into two posts.

THE NITTY-GRITTY

There is so much talk about what AEAS could or should do, that it is good to hear about what is actually being done and how it has turned out:  for example Helvetas on the “hard fight going on in the marketplace to catch the attention of consumers” and the need for a broad alliance of stakeholders to raise consumer awareness;  Harvest Plus on getting local agents to promote and sell biofortified foods (the Tupperware approach?);  Amtul Waris on approaches to engage children;  Dick Tinsley on what poor people can do for themselves, and what services cash-strapped governments can pay for;  George Bazayo of Tree Aid, Burkina Faso and Mahtab Bamji of the Dangoria Charitable Trust describing and evaluating integrated small farming projects with a nutrition education component; and Kenneth Oulu’s experience of promoting “women’s crops” in Tanzania.

They are all discussing problems and pathways, all involving some form of food education or learning, by whatever name.  I’d like to add my own point of view based on my field experience and reading.

PROBLEMS

Overburdened?

Contributors mention several challenges to AEAS taking action on nutrition (also brought out in the GFRAS study by Fanzo [[1]](http://www.fao.org/fsnforum/activities/discussions/extension-gender-nutrition#_ftn1)),such as lack of resources/ time/ transport/ training/coordination with other services; social and structural barriers and institutional barriers (e.g. gender attitudes, land ownership, the traditional AEAS focus on staples and productivity.  It is generally felt that the AEAS (a) have enough on their plates, (b) may not see nutrition as a priority, or indeed as their business, and (c) could do with official guidelines about what to do.

Indeed, don’t they have some justification?  There seems to be a general expectation that it’s the job of the extension services to compensate for low levels of food literacy in the population.  Imagine how much malnutrition, stunting and obesity would be averted if children left school with some understanding of and practice in cooking, feeding babies, growing  fresh vegetables, eating healthily, shopping wisely, protecting themselves against dangerous foods, adapting to change, recognizing and resisting misleading food advertising, and bringing up their children to do the same.  These skills are part of the Right to Food. There is a general absence of effective food and nutrition education in schools, in public education (the media, public information sites, community programs [[2]](http://www.fao.org/fsnforum/activities/discussions/extension-gender-nutrition#_ftn2)) and in social protection schemes.[[3]](http://www.fao.org/fsnforum/activities/discussions/extension-gender-nutrition#_ftn3) I was heartened to read the proposals for comprehensive school food and nutrition education (SFNE) from contributors.  This was also a recommendation of the ICN2 conference.

Limitations and motivations

There are also some inherent limitations on what AEAS can achieve for nutrition, which can affect the motivation of all concerned - farmers, households, AEAS and their ministries.

* Diet and health  Nutrition impact depends not only on diet, but also on general health, for which AEAS are not directly responsible:  the best of nutrition interventions can be undermined by malaria, helminth infections or diarrhoeal diseases, or just lack of exercise.  So (for example) it will always be hard to promise convincingly that more spinach will make you stronger, or to see the effects.
* Cash or consumption?  There is an inherent conflict of interest between cash income and improved home consumption. Poor people need to make money immediately, says Paul Rigterink, and many others have pointed out the  permanent motivational gap between present cash in the hand and the uncertain promise of future better health.[[4]](http://www.fao.org/fsnforum/activities/discussions/extension-gender-nutrition#_ftn4)  The tension exists not only for farmers and households, but also for AEAS and MoAs, who pride themselves on increasing rural prosperity.
* The partial picture   AEAS are not in a position to deal with the whole household food situation; they deal with what people grow for food, not with what they buy.  For any given context, this raises the question of where the main nutritional threats to health come from – is it homegrown dietary monotony, or the empty calories in bought food, or both?  The Dangoria Charitable Trust project evaluation asked what foods farmers buy with the money they get from selling the foods they produce.  We should also ask farmers whether they prefer buy or growing.  Growing means extra time and effort in the garden and kitchen.  Buying can be cheaper, more convenient, tastier, quicker, sometimes more prestigious,   and above all time-saving (women don’t want anything which takes more time, says Aklilu Nigussie).  Social marketing experts would say this choice is a no-brainer.

If global reviews have difficulty establishing reliable pathways from agriculture to improved nutrition,[[5]](http://www.fao.org/fsnforum/activities/discussions/extension-gender-nutrition%22%20%5Cl%20%22_ftn5%22%20%5Co%20%22) how can ordinary households see the benefits and urgency of producing and consuming differently? Unlike harvests and market prices, nutrition outcomes have low visibility and  many people do not think of varied vegetables or fewer soda drinks as concrete steps towards prosperity. Action for good nutrition is moved by attitudes and conviction as much as by reason.  This has consequences for the approach.  With resistance from established habits and social norms, competition from cash and convenience, and not a lot of clearly attributable outcomes, good information and sage advice are generally not enough to get people eating better.

POST 2     TRAINING

WHAT WORKS AND WHAT DOESN’T

If Ministries of Agriculture and the AEAS do want to take nutrition and diet into their sights, we know quite a lot about what works and what does not.  Here are some of the ideas.

* More of the same - increased productivity/better harvests/agricultural training

It is often recommended is that AEAS improve what they are already doing, with more personnel, more women, more resources, better seeds, better technology etc.  Of course this will improve food security, but we can’t assume that improving supply will reshape food consumption patterns.  On their own, supply-side interventions have a patchy impact on nutrition.  Like rising household income or increased GDP,   they tend to perpetuate and reinforce existing dietary patterns, or to improve them within the frame of what consumers already see as good (e.g. more meat).  So I would risk the thought that if AEAS are to improve nutrition, they will need to go a little beyond what they are already doing.

* Imparting nutrition knowledge

Some knowledge of food and nutrition is certainly a must.  Nutrition awareness and perception do look like an obvious part of the professional repertoire for people who advise on what to grow and how to grow it, and whose mandate is to safeguard farmers’ interests and welfare.   It is frequently suggested therefore that AEAS acquire and “disseminate information” about good nutrition. However knowledge alone is not enough for either AEAS or their clients. It is well attested[[6]](http://www.fao.org/fsnforum/activities/discussions/extension-gender-nutrition%22%20%5Cl%20%22_ftn6%22%20%5Co%20%22) that it is a necessary but not sufficient condition for changing food practices (as we also know from personal experience).  AEAS may like to test this for themselves by giving nutrition information and checking how far it is heeded.

* Behavioural  messages

Specific messages about what to do, shaped for particular audiences, are the mainstay of behavior change interventions, and are more successful than general information. It’s often proposed that AEAS should act as ancillary messengers in “delivering” dietary messages (face-to-face communications have been found very effective in promoting change).  This however is only part of a multi-faceted intervention [[7]](http://www.fao.org/fsnforum/activities/discussions/extension-gender-nutrition#_ftn7) and may limit the role of AEAS and not make much use of their special expertise and local knowledge.

* Integrated agricultural interventions

Increasingly favoured are packages which mix experience and practice in growing and preparing foods with some knowledge of food and diet, and practice in changing habits, and which call on local experience and family/ group/ community support.  Contributors have given interesting examples of how agricultural, marketing and nutrition knowhow are directly put into practice.  Such packages have the potential to make full use of AEAS’ working skills and experience. However these are usually independently funded projects with specific targets and target groups.  Can such approaches be promoted in the regular extension services, with their limited resources, manpower and time?

TRAINING

If AEAS are willing to take an interest in improving local diet and nutrition,  then it seems that programs of action (and related training and guidelines) should aim at being economical in time and resources;  should be practical, productive and rewarding;  should make use of existing knowledge and skills and build easily into normative work patterns;  should “breed” support wherever possible, and develop capacity in the AEAS.   Effective national and ministerial policy, intersectoral coordination and easy access to accurate information can of course make everything much easier.

In the curriculum

We would surely expect local food experts to be primed to make health connections between what’s grown and what’s consumed, know what common foods are good for, recognize poor diet and see how locally grown crops could improve it.  It cannot be ethical to keep nutrition knowhow out of the agriculture curriculum.  Two relatively inexpensive and feasible strategies are:

* Nutrition across the pre-service curriculum   Review the whole pre-service agriculture curriculum in collaboration with its subject lecturers, integrating nutrition links and mini-activities wherever appropriate and making sure that nutrition is included in a small way in several official subject examinations.  This builds student awareness incrementally, and also creates better-informed subject teachers (there is nothing so educational as marking exam papers and grading projects).
* Self-study course in food and nutrition   Develop, adopt or adapt a short tutored self-teaching course in food and nutrition for both pre-service and in-service, adaptable for other services so that all are on the same page.  Keep it online, where it can be updated and downloaded or printed for local use.   The content should cover not only the basics of food and nutrition, but also local issues, national diets, national nutrition programs, approaches and best practices, and a number of exercises involving direct observation, finding information resources, exploring people’s opinions etc. The course can be done first by supervisors/lecturers, who then become facilitators for groups of students or workers in their own workplaces. (For best results, spread it over at least 10 weeks, with 5 tutorials, and a final test.)

In the field

Finally, on the-job learning, which is more important than any other training.

Field training programs should parallel the new job dimension.  They should aim to generate small observable improvements in local food practices; build community initiative and capacity in undertaking them; get support from health and education services; train up AEAS teams in the art of instigating, monitoring, assessing, recording and recycling the process; and get some recognition for achievement from both communities and ministries. Ideally they are slow, systematic and incremental, and result in a capable, skilled and motivated workforce which can operate independently. The training period (a year?) can be guided by ministerial protocols and some basic materials.

I am sticking my neck out here!  Such programs, if well organized, work fine in other kinds of professional work which are not so different from agricultural extension (e.g. teacher training, medical internships, social work, counselling), but I have never seen them in an AEAS service.

Is it feasible? Has it been done?

[[1]](http://www.fao.org/fsnforum/activities/discussions/extension-gender-nutrition#_ftnref1)Fanzo, Jessica, Q. Marshall, J. Wong, R. I. Merchan, M.I. Jaber, A. Souza, N. Verjee .

The integration of nutrition into extension and advisory services  2013.  G-fras.org and World Bank Secure Nutrition.  [www.g-fras.org](http://www.g-fras.org/)  Global forum for rural advisory services

<http://www.fsnnetwork.org/sites/default/files/gfras_nutrition_report.pdf>

[[2]](http://www.fao.org/fsnforum/activities/discussions/extension-gender-nutrition#_ftnref2) The American community nutrition education program for low-income groups, EFNEP, covers many of these skills, and shows good results in its annual evaluation.

[[3]](http://www.fao.org/fsnforum/activities/discussions/extension-gender-nutrition#_ftnref3) Social protection programs are currently beginning to discover the very large supplementary impact of a food and nutrition education component. See Akhter et al. 2016 Which form of safety net transfer is most beneficial?  Impacts on income, food security and child nutrition. IFPRI.  <http://www.slideserve.com/maine/akhter-ahmed-john-hoddinott-wahid-quabili-shalini-roy-fiona-shaba-and-esha-sraboni>.

[[4]](http://www.fao.org/fsnforum/activities/discussions/extension-gender-nutrition#_ftnref4) For example, Banerjee and Duflo  Economist blog April 2011 Why people don’t take simple low-hanging fruit options to protect their health.  [http://www.economist.com/blogs/freeexchange/2011/04/banerjee\_and\_duflo\_0.](http://www.economist.com/blogs/freeexchange/2011/04/banerjee_and_duflo_0.%C2%A0) They make the same point in their classic study Poor Economics 2012.

[[5]](http://www.fao.org/fsnforum/activities/discussions/extension-gender-nutrition#_ftnref5)  A great chorus of review literature makes the point that agricultural programs may have  great potential for improving nutrition but there is “little empirical evidence on the role of agriculture and other nutrition-sensitive sectors on nutrition” (HLPE of SCN 2016, draft report) or understanding of how to achieve the potential (Thompson and Amoroso 2010).  See also Hodge et al. 2016, Fiorella et al. 2016 review, Yosef et al 2015 re Bangladesh, Webb 2013b), Masset et al. 2011, Hawkes et al. 2012).

[[6]](http://www.fao.org/fsnforum/activities/discussions/extension-gender-nutrition#_ftnref6)See e.g. Contento et al. (1995) The effectiveness of nutrition education and implications for nutrition education policy, programs and research: a review of research. Journal of Nutrition Education, 27(6), 355–364.   Most behaviour change theory supports this finding.

[[7]](http://www.fao.org/fsnforum/activities/discussions/extension-gender-nutrition#_ftnref7) Researching, developing, trialling and disseminating behaviour change messages is a big job, so the AEAS role in behaviour change interventions is generally taken to be as extra support.

## Maria Eugenia Castillo Ortiz, DEBMAGRO, Ecuador

**Original contribution in Spanish**

Para lograr un mayor desarrollo de las areas en donde las AEAS a traves de su participacion de asesoria agricola, se debe implementar mecanismos a traves de las entidades locales para que se genere una intervencion total dentro de la produccion agricola, la cual este enfocada a cerrar el circulo : conocimiento en mejoramiento de la produccion agricola a traves de herramientas tecnologicas a bajo costo , desarrollo de lineas de produccion de bajo costo en el cual se genera una equidad de genero , contribuyendo al desarrollo microempresarial y a una mejora en la nutricion del nucleo familiar.

Las AEAS se enfrentan a retos como el acceso a grupos asociativos que se comprometan en establecer cambios en la forma de produccion de sus alimentos para asi generar mejoras en la nutricion.

En Ecuador en la zona rural de Guayas existen asociaciones que son apoyadas a traves de organizaciones gubernamentales en la produccion de cacao; sin embargo éstas no completan el ciclo de asistencia , el cual se limita a ser una asistencia en producción, quedando sin desarrollar la parte de la transformacion del producto a pequeña escala en donde puedan intervenir mujeres dentro del desarrollo del negocio.

Un Foro Global como el GFRAS debe incluir dentro de su actividad buscar grupos de interes de desarrollo rural comunitario en los cuales a traves de las AEAS se generen mecanismos que promuevan la equidad de genero y consigo la promocion de mejoras en la nutricion. Crear un nexo entre las AEAS y las organizaciones no gubernamentales permitirian que las acciones de las AEAS no se limitan a generar conocimientos sino mas bien a establecer estrategias para que la produccion rural se convierta en una fuente generadora de empleo con diversidad de género

Maria Eugenia
Ecuador

**English translation**

To further develop the areas where AEAS provide their agricultural advisory services, mechanisms must be implemented through the local entities, fully addressing agricultural production and focused on tying up all the ends: knowledge on the improvement of agricultural production using low-cost technological tools, development of low-cost production lines through which gender equality is realized, contributing to microenterprise development and to the improvement of family nutrition.

AEAS face several challenges, like the access to associative groups committed to change the way in which food is produced in order to improve nutrition.

In the rural area of Guayas in Ecuador, several associations of cocoa producers are supported by governmental organizations. However, the assistance cycle is incomplete as it is limited to production and does not address the small-scale product transformation stage in which women can be engaged.

A Global Forum such as the GFRAS should seek community rural development interest groups generating mechanisms through the AEAS that promote gender equality and improve nutrition as a result. Liaising AEAS with non-governmental organizations would broaden AEAS impact: aside from providing knowledge, they would implement strategies to make rural production a gender-diverse source of employment.

Maria Eugenia
Ecuador

## Emily Janoch, CARE, United States of America

Inspired by FAO's estimate that if women got the same access to resources as men, there would be 160 million fewer hungry people in the world, CARE designed the [Pathways](http://www.care.org/pathways)program in 6 countries for women farmers. We have recently completed a [cost benefit analysis](http://www.care.org/work/world-hunger/pathways-empowerment-increases-food-security-50000-women-farmers/how-get-31-return)of expanding extension services to women farmers, combined with gender dialogues and marketing techniques.  The results were remarkable, and remind us that expanding extension services can have big impacts on gender.

What did we see?

\* For every $1 invested in the program, communities saw a $31 return in benefit (split among women's empowerment gains, food security, and livelihood gains.

\* Improved women’s access to extension services: Women’s access to extension more than tripled in every country Pathways worked in. Farmers’ Field and Business Schools were a particularly important way that we opened up access to information and extension for farmers.

\* Women are more empowered: The number of women who meet CARE’s definition of empowered on the Women’s Empowerment in Agriculture Index more than doubled in Ghana and Tanzania, and women’s empowerment scores increased an average of 14 points for Mali and Tanzania, and 6 points for India, Ghana, and Malawi.

\* Women can make more decisions: women’s ability to influence household decisions about assets went up by about 25 percentage points—with the highest impact in Mali—a 37 percentage point change.

\* Better access to inputs: In India, Ghana, and Tanzania, seed replicators and agri-kiosks have lowered costs and barriers of high-quality inputs for farmers. In every country, access to inputs went up by at least 10%, and in India and Tanzania it more than doubled.

Women often sited that being the person who got agricultural knowledge from an extension agent changed their standing in the household and the community.  Having that respect, and the authority of being the person who had new information, mattered to them.  Becoming better farmers, and the increased income that resulted, also gave them power and respect in the communities. Extension services won't do this alone, but they are a critical component of building women's empowerment as farmers.

## Mona Dhamankar, KIT, Netherlands

**To what extent do you think should AEAS be involved in broader development, going beyond providing and facilitating access to knowledge, information and technologies?**

The role AEAS is changing and therefore the new extensionist needs more and different knowledge on how to integrate different development dimensions in his/her work. It is more than the conventional linear transfer of technology role. AEAS is expected to facilitate smallholders – men and women producers – to grow more (productivity enhancement), to earn more (link to remunerative markets), to eat right (production diversity) in order to achieve food and nutrition security. Communities needs advice and support on all components of value chains – right from which crops to grow (diversity), how to increase productivity (quality inputs, services, credit), how to maximize income (organize themselves, aggregate produce), how to consume right (reduce food losses, improve food safety, increase nutrition value) and facilitate behavior change for improved consumption (quantities, quality/diversity as well as individual need-based food allocation within households) – this steps are critical in the agricultural pathway to nutrition which hinges on women’s participation and control over agriculture activities. Mere participation of women is not enough – they might need facilitation to get access to land, to inputs, to information, to credit, to markets, to processing facilities – this might be done through different programs but will only add to their work if men are not sensitized and gender roles and relations are not affected. This is a critical role that AEAS workers need to be able to play.

**What specific challenges have you encountered that hinder AEAS from addressing gender inequalities and promoting nutrition?**

From an implementation point of view, be it public or NGO-led extension, it is very important for the extensionists to be oriented with the basics of gender and nutrition, and how it relates to their role of providing advisory services in the agriculture domain. Orientation could be in the form of classroom or e-learning sessions covering basic concepts as well as concrete examples of “how to” integrate nutrition and gender in agricultural interventions. Gender is particularly with reference to the intra household dynamics that influences decision-making related to agriculture that has a bearing on nutrition outcomes – e.g. what to produce? How much? How much to keep for home consumption? How much to sell? Where? At what price? How to use the income – how to divide it between food and non-food expenses? Each of these questions has a gendered choice, and needs to be facilitated. The role of the extensionist would be first as role model where s/he can share his/her own way of making these decisions; thereafter s/he needs to have the resources and authority to mentor and monitor communities to do so.

**Do you know any examples of AEAS successfully addressing gender inequalities and supporting improved nutrition outcomes? What factors, including specific approaches and tools, led to success?**

The Sustainable Nutrition for All (SN4A) project implemented jointly by SNV, KIT and CDI in Zambia and Uganda has been effective in involving government AEAS agents for nutrition activities. At the operational level, extension agents are members of nutrition coordination committees that interface with communities along with health technicians and school teachers. They work closely with community level nutrition champions who are the link between the nutrition committee and the community. The jurisdiction of this committee is the catchment of the secondary school in the area. The AEAS links with health and education and provides technical know-how for establishing school and home gardens for year round availability of nutritious crops esp. vegetables and fruits. They have been oriented in nutrition as well as intra-HH dynamics, and how it links to the home gardens not only in terms of what is grown but how the produce is used. They also talk about consumption and associated behavior change and follow up on these aspects regularly. This community based approach is human resource intensive but effective and sustainable as community representatives are involved and contribute without honorariums. For now the project is providing resources for mobility and capacity building at all levels and the government ought to take it over through other development programmes after the project ends.

**What do you think the role and main activities should be of a global forum such as the GFRAS Nutrition Working Group in helping AEAS to become more gender-sensitive and able to contribute to improved nutrition?**

GFRAS has developed e-learning modules and materials to integrate gender and nutrition in AEAS – widespread dissemination and use of these materials is important. Some of the materials might have to be adapted to different contexts and commodities. However effectiveness of e-learning methods might be limited unless it is accompanied by face-to-face sessions to reinforce learnings.

1. FAO.2017. Strengthening sector policies for better food security and nutrition results. Gender Equality. Policy Guidance Note. Rome. [↑](#footnote-ref-1)
2. Christoplos. I. 2010. Mobilizing the potential of rural and agricultural extension. FAO. Rome. [↑](#footnote-ref-2)