**How can value chains be shaped to improve nutrition?**

**Collection of contributions received**

Table of Contents

Topic note 4

Contributions received 6

1. Kuruppacharil V. Peter, World Noni Research Foundation, India 6

2. Erick Boy-Gallego, HarvestPlus/IFPRI, United States of America 6

3. Bruno Kistner, Asian Roundtable on Food Innovation for Improved Nutrition, Singapore 6

4. Lal Manavado, University of Oslo affiliate, Norway 6

5. Hamadoun A. Haidara, Association d’Appui au Développement Communautaire du Mali, Mali 11

6. Eileen Omosa, We Grow Ideas, Canada 11

7. Mebit Kebede, Jhpiego Ethiopia, Ethiopia 13

8. Working Group on Nutrition-Sensitive Value Chains of the Rome-based Agencies 14

9. Rose Hogan, Trocaire, Ireland 14

10. Morgane Danielou, Private Sector Mechanism, France 15

11. Lucy Quainoo, MEL Consulting Ltd, Ghana 17

12. Stephen Machado, Oregon State University, United States of America 18

13. Boris Karpunin, Federal Center for Agricultural counseling and Retraining, Russian Federation 18

14. Franck Hubert Ateba, Afrique Avenir, Cameroon 20

15. Dhanya Praveen, Environment Protection Training and Research Institute, Hyderabad, India 24

16. Ann Steensland, Global Harvest Initiative, United States of America 24

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

18. Florence Egal, Food Security and Nutrition expert, Italy 26

19. Sangeetha Rajeesh, LANSA Consortium, MSSRF, India 27

20. Working Group on Nutrition-Sensitive Value Chains of the Rome-based Agencies 28

21. Mar Maestre, Institute of Development Studies, United Kingdom 29

22. Kouakou Valentin Kra, Université Alassane Ouattara, Côte d’Ivoire 30

23. Eduardo Mosquera Llanos, +Ambiente, Colombia 32

24. Waddilove Sansole, SNV, Zimbabwe 32

25. Gildas Tiwang, Cameroon 33

26. Hélène Delisle, University of Montreal, Canada 33

27. Adebayo Depo, Togo 34

28. Frank Eyhorn, HELVETAS Swiss Intercooperation, Switzerland 35

29. Helen Medina, Nestlé, Switzerland 36

30. Sebastian Romero Villamil, Colombia 38

31. Working Group on Nutrition-Sensitive Value Chains of the Rome-based Agencies 40

32. Joy Muller, Switzerland 41

33. Pilar Teresa Garcia, FANUS Foro de la alimentación, nutrición y salud, Bolsa Cereales de Buenos Aires, Argentina 42

34. Emile Houngbo, National University of Agriculture, Porto-Novo (UNA), Benin 42

35. C. Palanivelayutham Chokkalingam, India 43

36. Arshad Malik, PMAS – Arid Agriculture University Rawalpindi, Pakistan 43

37. Kemuel Satu, Solomon Islands National University, Solomon Islands 43

38. Kien Nguyen Van, Plant Resources Center (PRC) Viet Nam 44

39. Lal Manavado, University of Oslo affiliate, Norway (second contribution) 44

40. Victor Pinga, SPRING Project, United States of America 45

41. Bhavani R. Vaidyanathan, MS Swaminathan Research Foundation, India 46

42. Bhavani R. Vaidyanathan, MS Swaminathan Research Foundation, India (second contribution) 47

43. Rohit Parasasr, MS Swaminathan Research Foundation, India 47

44. Edye Kuyper, UC Davis, Integrating Gender and Nutrition within Agricultural Extension Systems (INGENAES) Project, United States of America 47

45. Mylene Rodríguez Leyton, Universidad Metropolitana de Barranquilla, Colombia 48

46. Working Group on Nutrition-Sensitive Value Chains of the Rome-based Agencies 55

47. Abdulazeez Badairo, Farmers’ Corner, Nigeria 56

48. Bill Butterworth, Land Research Ltd, United Kingdom 57

49. Lal Manavado, University of Oslo affiliate, Norway 57

50. Dorcas Ukpe, Benue State Government, Nigeria 57

51. FSN Forum Team, FAO, Italy 59

52. Valentine Obiasogu, University of Ibadan & the International Association of Students in Agriculture and Related Sciences, Nigeria 60

53. Jeston Lunda, Action Aid, Zambia 60

54. Maria Delia Pinzon Gerena, UNAL, Colombia 60

# Topic note

In the context of Agenda 2030, food security, nutrition and sustainable agriculture are essential not only for achieving Sustainable Development Goal (SDG) 2, but also for the broad set of SDGs.

A healthy diet is key to preventing malnutrition in all its forms. However, diverse nutritious foods are not always available and affordable for all, especially in low income settings. Furthermore, rapid urbanization and changing lifestyles have led to a shift in dietary patterns, partly due to changes in the food systems and its effects on the availability, affordability and desirability of healthy, as well as less healthy foods.

Improving nutritional outcomes requires consideration not only of the way food is produced, but also how it is processed, distributed, marketed and consumed, a process that is usually referred to as 'value chain'.

Value chains are one of the core elements of a food system. In addition to including all food value chains required to feed a population, food systems include – among other elements –a diverse set of drivers (e.g. political, economic, socio-cultural and environmental drivers) that affect all VC actors, including consumers. Nutrition-sensitive approaches to value chain (VC) development have emerged as a promising way to shape food systems for improved food security and nutrition outcomes.

Building on our existing understanding of how food systems influence dietary patterns and nutrition, this consultation seeks a more in-depth exploration of the role of value chains, as a useful framework to unpack the complexity of food systems.

**Nutrition-sensitive value chain** - A food value chain consists of all the stakeholders who participate in the coordinated production and value-adding activities that are needed to make food products (FAO, 2014)[[1]](#footnote-1). Though the traditional focus has been on economic value, nutrition-sensitive value chains leverage opportunities to enhance supply and/or demand for nutritious food, as well as opportunities to add nutritional value (and/or minimize food and nutrient loss) at each step of the chain, thereby improving the availability, affordability, quality and acceptability of nutritious food. For lasting impacts on nutrition, this approach must be placed in a sustainability context as well.

The Rome-based Agencies (RBAs)—including FAO, IFAD and WFP, along with Bioversity International and IFPRI—have identified nutrition-sensitive value chains (NSVC) as a key area where their collaboration can be strengthened, along with that of governments, private sector, civil society and academia, to enhance progress towards ending malnutrition in all its forms. In this context, an RBA Working Group was set up on the topic. Drawing on existing VC for nutrition approaches[[2]](#footnote-2), the RBA WG has developed a joint nutrition-sensitive value chain (NSVC) framework, which was the object of a **Discussion Paper** ([**www.fao.org/3/a-mr587e.pdf**](http://www.fao.org/3/a-mr587e.pdf)) presented at a Special Event during the Committee on World Food Security Plenary Meeting in October 2016.

The NSVC framework is a practical approach to navigate the complexity of food systems and identify investment and policy opportunities to ensure that food value chains contribute to improved food security and nutrition. Opportunities to enhance nutrition outcomes arise at all stages of the value chain, from production to consumption. Adopting a NSVC approach allows for analyzing the roles and incentives of different actors along the chain, and to consider what may be the impact on cross cutting issues such as gender and climate change, as well as what policy and regulatory environment is conducive for VC to contribute to nutrition.

Although VC development holds great potential to contribute to nutrition, there are also a number of tensions and trade-offs that arise when combining the objectives of developing economically viable value chains, and improving food and nutrition security. Identifying and addressing these challenges while searching for opportunities for convergence and multi-stakeholder partnerships are an integral part of the NSVC framework.

**Objectives of the consultation**

The RBAs invite the participants of the FSN Forum to read the discussion paper on 'Inclusive value chains for sustainable agriculture and scaled up food security and nutrition outcomes', and engage in a stimulating discussion that will contribute to identifying a broader set of challenges and opportunities related to NSVC development, collaboration among partners, as well as identifying good practices and lessons learned from past or on-going NSVC experiences on the ground.

In particular, we encourage participants to explore the following questions:

1. What challenges and opportunities arise when developing VC to be more nutrition-sensitive?
2. What examples of nutrition-sensitive value chain approaches can you share and what lessons can be learned from them? Examples can come from:
   1. Governments: policies, regulatory frameworks, etc.
   2. Development actors: development projects, public-private partnerships, etc.
   3. Private sector: nutritious products for the bottom of the pyramid, marketplace for nutrition, etc.
3. Does the framework as presented in the discussion paper help you identify barriers and opportunities for nutrition-sensitive value chain development? What would be needed to render the framework more operational?
4. What would you consider as the main barriers to and enabling factors for scaling up through replication, adaptation, and expansion of these models of interventions?

The outputs of this consultation will be an important input for the RBAs to refine their approach to nutrition-sensitive value chain development, and to move from Principles to Action, bringing this approach to on-going operations in the field. Given the vast nature of the topic, we particularly welcome comments that can lead to practical recommendations.

We thank in advance all the contributors for sharing their views and experiences in this innovative field.

# Contributions received

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

Value chain involves crops/livestock, farming practices and farmers, products and produces, pre-and post harvest technologies, procts testing, packing, branding, marketing, consumers, waste recycling to value added products. Each link of the chain is interdependent. The basic economics of an effective value chain is that producer-farmers should get 50% more than cost of production. Processing involves technologies. Food safety and certification ensure quality of products to consumers. The quality of primary raw materials-grains, farm produced vegetables and fruits, spices, plantation crops, tubers, mushrooms and edible bamboos is a priori to quality end products. Standardisation of value chain has come to stay in many countries.

## Erick Boy-Gallego, HarvestPlus/IFPRI, United States of America

Value chains of be it food, machinery, etc. are demand driven and profit driven. Thus unless the "merchandise" of interest in this case for public nutrition benefit is efficient and cost-effective, the consumers that most need the said good will remain in the fringe of the market driven solution. Staple crops, biofortified or not, are part of cost-effective (though not optimally so) value chains of different scopes and quality.  On the other hand, the value chains of the other elements of diets that constitute "diversified" dietaries are much more susceptible to losses due to physiological decay, seasonality of the fruits and vegetables and nuts, intensity of labor for production, particularly because undertakings such as homestead or community orchards (food gardens) do not typically benefit from economies of scale or links to market.

## Bruno Kistner, Asian Roundtable on Food Innovation for Improved Nutrition, Singapore

The first and simpliest step is to mandate food that is normally consumed by the BoP consumer with a balanced nutrient portfolio including the B-vitamins - this is the cheapest and easiest way to provide essential nutrients to vulnurable parts of a population as it does not require change of consumption habits. For a longer term strategy we need to look at food systems - from providing food to providing the right food. Currently carbohydrates fill the stomach and are cheap - we need to look into business cases how the food system can provide food diversity to low income populations. For this the SDG goal no 17 - forming partnerships - will be essential. Donations are not sustaianble but business cases are - so how can we take a huge step by providing business cases not only from the private sector but combining private and public sector. The public sector could support business cases by positive taxation for example or by supporting diversity in exising food systems.

## Lal Manavado, University of Oslo affiliate, Norway

**Seeing the Dietary Forest, and then its Sub-System Trees in Context**  
  
My somewhat curious title emphasises the holistic tenor of this discussion which is intended to suggest some answers to the questions concerned with the conceptual framework in use, how it may be improved, obstacles to its being made operational, and how to promote its wide-spread adaptation. However, I may have to change this order to ensure the logical cohesion of this submission.

In my attempt to understand the notion of ‘value chain’, in connection with food, I put the following questions to several people of ages ranging from 8 to 80:

1. Has a transport system or a storage system any value if there is nothing worth transporting or storing?

In answer, I heard giggles, sarcastic laughter, uncomplimentary remarks on my intelligence, and got not a few angry looks.

I think this justifies the belief that transport and storage systems have a value qua a service, if and only if they can be used to transport and store something that is already valuable to us. In other words, their service value derives from the value of what they help us to store and transport and not vice versa. Next, I asked some others in same age groups a new question.

2. Would you like to go to that fine new shop X over there and buy beautifully packaged street dust?

Unfortunately, the answers I received this time were even more uncomplimentary not only to my intelligence, but they seem to question even my sanity. But, they seem to justify my belief that selling in any form derives its value qua a service, if and only if what is sold is believed to have a value to us. Thus, the service value of selling derives from the value of what is sold, and not vice versa. In spite of my previous experience, I dared to pose a third question to some other people in same age groups.

3. Would you grow food, raise domestic animals and fish, or make preserves and dairy products, can foods, turn out industrial food, if we did not need any food at all?

I am afraid I nearly got arrested this time, and I shall pass over the looks and words I got in response to my question. Suffice it to say that I am glad I got home in one piece.

Once again, these responses underline the same thing, i.e., agricultural pursuits, fishing, food preservation, and production of industrial food, acquire a value as a service only because we need food, hence, food is valuable to us. Thus, production and various types of food processing acquire their service value from the value food has for us, and not vice versa.

We all know the value of food derives from the value we place on our lives, because nobody can live without food. This may appear too simple for those who wish to make it seem complex, but I can only refer them to wise William of Ockham to see why simplicity is preferable to unjustifiable complexity.

So, it would be reasonable to suggest that a food supply to most end-users (except to those who produce more or less all their own food) represents a chain of systems beginning from a yielder system (farms, raising household animals, fisheries, and to a minor extent some forests), and then extends via a transport, storage, preserving and selling systems. The original food selling systems were concerned with offering the end-user raw food or ready-to-eat food in exchange for money. The latter represents the various catering systems of today.

When an end-user procures raw food by its purchase, often it passes through a preparation system before it is eaten. An industrial modification of this system is used to manufacture industrial food. Moreover, preserving systems are industrialised to a great extent in affluent countries to produce canned foods, various preserves, dairy products, etc.

I have not included here what I have called the Ecoservices supplementary system, which is concerned with providing yielder systems the ecosystems services they lack in sufficient quality and/or quantity. These include irrigation, fertilisers, high-yield crops and animal species, etc. Nor have I outlined the subtle variants of other industrialised systems. What is crucial here is to understand that their service value derives from the intrinsic value of food for our continued existence.

Therefore, it would be reasonable to regard a food system as a chain of sub-systems, whose value as a service to us is dependent on the value of food as the means of satisfying one of our fundamental needs, viz., and nutrition. It follows from this that value of a food system as a whole arises from its role as a tool that enables us to satisfy that need.

After this preamble, we can now look at the question, “does the framework as presented in the discussion paper help you identify barriers and opportunities for nutrition-sensitive value chain development?”

As I have outlined, the value of the system chain that makes up a food system derives from the intrinsic value of the food it is able to supply, and the assistance its components provide us in procuring food. Apart from the yielder system, others can only have a service value only to the extent to which they facilitate the availability of wholesome and affordable food in a sustainable manner.

Naturally, these conditions also apply to yielder systems, but they have an immense value by being the source of food itself. Therefore, it is reasonable to suggest that the justifiable value of a food system as a whole derives from how adequately it enables the people to satisfy their need of nutrition by making available to them affordable and wholesome food in a sustainable manner.

Thus, I think it would serve our purpose better if we can begin to think and talk about a nutrition value chain that constitutes a food system, rather than a bland value chain which is merely concerned with the service values of each component. This latter has no bearing on nutrition per se; it is concerned with commercial gain.

This conception of a nutrition value chain offers us several advantages, not the least of which is enabling us to get our value priorities agree with the real world, i.e., valuing food and help to have it at hand because they are essential to our lives. So, the real value of a food system is indicated by how adequately it enables its users to meet their need of nutrition in a sustainable way. This depends on its capacity to sustainably supply them wholesome, varied and affordable food.

Judging by FAO’s figures, a considerable number of food systems in several parts of the world do not seem to have an adequate value with respect to the notion of value presented here. Please note that it offers a ‘seamless’ explanation of phenomena associated with diet in value terms as outlined below:

I. Value loss due to lack of sustainability due to insecurity, natural disasters, lack of man-power, etc.: Results: starvation to malnutrition. Indicators: Low availability, diversity, wholesomeness and excessively high food prices.  
II. Value loss due to lack of diversity (yielder system): Results: Obesity and/or deficiency diseases and stunted development: Indicators: prevalence of a cheap same diet and/or industrial food, and high cost of a wholesome, varied diet.

After this brief example, we can easily see the value consequences of the availability of cheap unwholesome food as obesity and malnutrition, and it is indicated by a plentiful supply of cheap industrial food. The crucial point here is that it allows us to easily explain that availability and affordability in themselves do not impart a value to a food system unless it involves wholesome food. Our present model can easily account for this while the traditional VC fails to capture such important nuances.

I shall not labour this point by showing how easily the present model can account for any other combination of sustainability, dietary diversity, wholesomeness, affordability and availability in terms of the real value of a food chain. Leaving that to the interested reader, I shall move on to the next question, “what challenges and opportunities arise when developing VC to be more nutrition-sensitive?”

I have already answered the second part of the above question; and to recap, it posits in a food system chain a justifiable value as a tool essential for us to satisfy our need of nutrition. Further, it enables us to identify its drop in value in terms of its inadequacy in its sustainability, diversity or wholesomeness of its output, affordability or availability of its products. This enables us to accurately locate its inadequacies with a view to remedying them.

Challenges we face in bringing about a conceptual change are legion. Our greatest adversary is how we have been taught to enhance human nutrition. While one group of doctors and professional nutritionists worked on how to treat and prevent deficiency diseases and various manifestations of malnutrition, they were little concerned with ascertaining whether the diets they rightly recommended were actually available easily, or affordable to those who needed them most.

Meanwhile, those who devoted themselves to increasing the food production were chiefly concerned with how to increase it quantitatively as quickly as possible. In developing countries, this led to an initial increase in the production of staple cereals, which was financially or environmentally not sustainable. Perhaps, the greatest obstacle to our progress was the priority given to industrial development at the expense of food production.

This unfortunate development inculcated in authorities and public mind that what mattered was economic growth that is measurable in monetary terms. Natural consequence of this misconception was the attempt to measure the success of food production, health care, etc., in financial terms, hence, ‘value chains’. Of course, it follows from that the intermediate systems that bridge the gap between the food producer and the end-user that are run for profit would receive an undue priority in excess of the service value they may possess.

Moreover, their industrialisation has given them financial power, hence influence in a variety of key places. Added to this the inertia traditional approaches exerts on our minds makes it difficult for us to break out of a fragmented and an unjustifiable way of looking at an issue that is vital for every living thing, viz., how to satisfy our need of nutrition.

On the other hand, if we insist on achieving SDG-2 through the traditional reductive methods, it is easy to foresee the consequences. As for “what would you consider as the main barriers to and enabling factors for scaling up through replication, adaptation, and expansion of these models of interventions?” the answer is even easier.

Keeping firmly in mind that vast majority of us procure food by purchasing it, emphasis the traditional models place on a putative value (and not a fair service value) of each sub-system making up a food system, can hardly contribute to the affordability of food. This may be seen as a justifiable obstacle to implementing a model that does not seem to be able to serve its purpose.

At the same time, this traditional notion of ‘value chains’ justifies transport, storage, processing and selling of food that will enhance their ‘value’ to those who operate them. With the able help of advertising, the ‘value’ of those sub-systems to their operators can be greatly enhanced by increasing the ‘sales volume’ of cheap food items. They can be made cheap by decreasing their diversity, wholesomeness and freshness, which in turn entails the use of fewer cultivars and animal breeds, i.e., reduction of bio-diversity in agriculture. Its implications for our environment, nutrition, public health, and sustainability are too obvious to mention.

So, at one extreme it may be able to make a varied and a wholesome food supply sustainably available, but its affordability would remain elusive. At the other, it may make a cheap food supply available, but the means it requires to ensure its ‘value’ to its operators and its affordability to end-users, rules out the diversity, wholesomeness and freshness from the food it offers, promotes reduction of bio-diversity from agriculture and environmental damage, not to mention its effects on human nutrition and health.

Of course, one may say, surely a compromise is possible. Yes indeed! That is what is happening right now! Some of us can still procure a wholesome and a varied diet, but it is not either available or affordable to most others. Meanwhile, availability of cheap industrial food is spreading apace into developing countries and taking its toll there. So, are we to support that compromise?

My response to the question, “what would be needed to render the framework more operational?”, will of necessity deviate from what is expected, because I sincerely believe that the traditional approaches to significantly enhance global nutrition are only capable of yielding some local success in areas where the problem is either very serious, or commercialisation of our daily activities is not advanced. But, as every development policy seem to advocate industrialisation and free trade as the panacea to all social ills, the traditional approaches to food security and nutrition will soon follow suit, and the dietary ills of affluent countries will become a global issue.

Therefore, I very much hope that an individual and environment centred holistic approach as suggested here, will soon become wide-spread. After all, it is an individual man, woman or child that starves, gets malnourished and stunted, or goes hungry most of the time. Unless our environment thrives, none of us can survive long without loosing forever many of the things that make life worth living.

So, I will briefly outline some of the things necessary to make a holistic approach to resolve our problem optimally operational. Let me begin with the policies needed for the purpose. Some might object quite rightly, what has that to do with the projects we have successfully carried out in various rural areas with no government help?

True, this makes policies sound like some useless luxuries, and there is some truth in it. However, if we remember that a central or a local government can put a lot of obstacles in the way of any project, we can better understand the importance of their policy not to do so. A local government may cover a large region, or it may turn out to be a village council.

Thus, policy is not the monopoly of a central government, or indeed that of a large authority. A village council may decide on a local policy, but its success depends on the higher authorities not interfering with it, or more preferably, supporting it by providing some of the resources necessary for its successful implementation. Here, it is clear that a central government policy to provide such support would be highly desirable.

We have been talking about policies concerned with the same area, viz., and food production. Depending on the number of levels of authority a policy has above it, its operational success depends on the policies on the same area pursued by those higher levels not obstructing it, or optimally, supporting it. But, a policy is surrounded by a large set of policies concerned with various areas, which makes the harmony among them is essential for their success. For a more complete description of this, please see, <http://www.fao.org/fsnforum/comment/7788>

Implementation of a policy generally involves two logically distinct steps. First, it is necessary to device a suitable strategy for the purpose. Even in a small country, one may have to use more than a single strategy to achieve a common objective. For instance, a small coastal land with a large infertile coastal plain and comparatively little arable land might decide on the following strategies to increase its food production:

I. Expansion and improvement of marine fisheries.  
II. Establish coastal aquaculture.  
III. Promotion and support of agriculture with fair and environmentally sustainable means that will be clearly described.

It will be seen that III above will consists of several sub-strategies with respect to people, places and the resources needed. In general, strategies are decided by people who need to possess an adequate degree of strategic competence whose exercise depends on their having access to reliable general data on itemised national food needs, agricultural potential of various areas, weather patterns, geography, available resources, etc.

Now we come to the operational level. It is here that things happen in the real world, or food is actually produced. Let us assume a full strategy on coastal aquaculture is in place. If so, it might allocate resources for projects say, to grow prawns in shelters in coastal waters. Now, the success of this operation depends on:

I. Adequacy of the allocated resources to achieve the target objective. A strategy often used to extend those resources is to allow several ‘stakeholders’ to participate in an operation. However, utmost care and circumspection should be exercised in choosing them in order to ensure fair play and the availability of food to the people.  
II. Adequacy of the technical competence of the people involved and their number.  
III. Choice of the appropriate species.  
IV. Adequacy of the relevant infra-structure.  
V. A co-operative mode of buying and selling the produce, for it is labour-intensive, thus making it possible for more people to afford other items of food they need.

The list above is by no means exhaustive, and it is only intended to indicate the line of analysis and synthesis one has to pursue to achieve a part of our goal while keeping our overall objective always in view; making sustainably available to the greatest possible number of people diverse and wholesome food at an affordable price, and this requires that we must also do all we can to enable them earn enough to afford the food we try to make available to them.

With best wishes,

Lal Manavado.

## Hamadoun A. Haidara, Association d’Appui au Développement Communautaire du Mali, Mali

**Original contribution in French**

Il est important de valoriser les aliments locaux car c'est eux qui sont accessibles aux populations qui sont dans le besoin.

**English translation**

It is important to valorise local foods because it are these foods that are accessible to people in need.

## Eileen Omosa, We Grow Ideas, Canada

**How can value chains be shaped to improve nutrition?**

Thanks for the timely topic, my contribution focuses on challenges related to awareness creation at various levels; policy makers, private sector, research, producers and consumers, on the benefits of a value chain.

*I start my contribution on awareness creation with a question, when and where did so many people get the idea that one should throw away an old cloth each time they get a new one?*

Awareness creation on **production**:

* Reason for food production. Like never before, we now have malnourished farmers. Did people misinterpret the message of treating agriculture as a business (agribusiness) to mean that they produce just for the market, forgetting that their family members need a balanced diet first.
* The need for new messages on the cost-effectiveness of cultivating a variety of food crops. There is a new trend whereby families opt to monocrop with the hope that returns from sales will be used to purchase other necessary food items to meet a balanced diet.
* What and how to grow? Calls for increased collaboration among policy makers, private sector, research and (rural) farmers to achieve a need-based production. For example, are the available seeds relevant to the climatic conditions and food needs of the community or market?
* Considering that women make the majority of farmers in rural areas, is the technology, e.g. machinery for land cultivation, harvesting and processing matched to the needs and capability of women or men?

**Processing**

* Awareness creation on the benefits of processing, especially to give the harvest a longer shelf life.
* How to process, start from known to the unknowns. The introduction of processing technologies has resulted in mass abandonment of traditional food processing methods, for unaffordable technologies. The challenge here is how to introduce a technology without making people feel that their previous practices are inferior, to be abandoned.
  + For example, I have come across women who have formed groups to grow vegetables and tomatoes for the market. Since most of their production is seasonal, based on rain, at harvest time there are thousands of them with a similar produce, forcing many to sell at very low prices, because, unlike the other group they heard of, they do not have a solar vegetable dryer. When asked how they preserved extra produce in the past, many say they have been told that the indigenous method of kitchen or direct sun drying are not hygienic enough. How do such farmers process and store the extra harvest for household consumption or to market at off-season?
* In the recent past I have noticed that whenever our youth talk about their involvement in agriculture; most are asking questions related to support to enable them to package their produce for profitable markets.
  + The need for expansion of school curricular to include all stages of value chain and food systems – otherwise we will continue to hear youth who have graduated from agricultural institutions still asking on what to do with their bumper harvest - critical, especially in rain-fed agriculture where bumper harvests go to waste.

**Distribution and marketing**

* The issue has been elaborated on in past sessions to include formation of cooperatives, use of information and communication technologies to learn on new markets, etc.
* The challenge is how to manage the issue of selling local at a lower price, Vs selling outside, mainly through middlemen at a comparably higher price – one of the reasons most of the nutrition-filled food is shipped, out of reach to rural consumers and the urban poor.

**Consumption**

* Awareness creation, especially as more and more people migration to urban centers. What food choices are they making? Are many migrants equating a higher income to over-processed and readily available meals?
* In cases where men migrate, leaving women in rural areas, do the men have enough food skills to prepare and consume balanced diets?

Thanks.

## Mebit Kebede, Jhpiego Ethiopia, Ethiopia

Dear Facilitators,

The issue you raised is very important and timely which we must share our exprience to bring any value chain aproach to be nutrition sensitive. I would like to share those opportunities and challeges on VC approaches to be nutrition sensitive. I also attached 2020 conference paper 4 on value chain for nutrition for further reference.

Challenges and opportunities in developing VC to be more nutrition sensitive.

Value chain concepts and approaches are versatile to be used to address different goals if properly designed. Since the problem of malnutrition is multifaceted, its solution is also multi-sectoral in which it needs coordination of different actors along the value chain to achieve nutritional goal of the value chain intervention. I would like to list the following opportunities to be considered while developing value chains to be nutrition sensitive:

· By its own nature agriculture value chain analysis can help to address the issue of food availability and accessibility which are pivotal steps to improvement on nutritional status of the community. The value chain approaches can answer the question of why foods are not available in a specific community and it has also potential to solve the problem by identifying the root causes for why food is not available and accessible to that specific community.

· Value chain approaches have also potential to identify why certain nutritious food are less affordable than others and propose solution to make them more affordable to vulnerable group of the community

· Value chain approaches have also a potential to identify where and how the nutrient quality of the food changes throughout the chain and how nutrient losses can be prevented

· It has also a potential to increase demand and acceptability of nutritious food for the poor because it incorporates the notion of value from consumers perspective

· Value chains do have a cross-sectoral nature which has a potential to coordinate actions and actors from farm to fork. Value chain approaches can thus be used to identify and engage the sectors that need to be involved to improve the coordination between agriculture and nutrition.

The common challenges of most value chain approaches to nutrition

· The focus of value chain so far has been on adding value in the chain to create value to the value chain actors neglecting the poor consumers

· “Value” the attention is mostly given to economic value

· The focus on single food commodity neglecting dietary diversity

· The focus on competitive markets leaves out other markets.

· Most value chain approaches do not start with explicit nutrition goal

· Nutrition problems are not clearly defined within the value chain approach

· In most value chain program, they always consider only economic value. Nutrition value is always missed.

Attachment: <http://www.fao.org/fsnforum/sites/default/files/discussions/contributions/Value%20Chain%20for%20nutriton.pdf>

## Working Group on Nutrition-Sensitive Value Chains of the Rome-based Agencies

The members of RBAs would like to thank all the contributors who provided their comments so far. Some of them provoke reflections on challenges and opportunities for value chains in contributing to improvement of nutrition. As stated in the topic note and by some of you, value chains must be considered, analyzed and facilitated as one of the core components of a food system.

A couple of you stated a trade-off of a nutrition-sensitive value chain. Value chains should be not only nutrition sensitive, but also economically viable, especially for producers/farmers. We would appreciate it if you could share with us any supportive policies, institutions, and programmes that are coherent and successfully manage this trade-off.

Some of you emphasized that value chains are market-driven and sustainable interventions require private-public partnerships in improving nutrition, be it a supportive tax policy to back a viable business case. One member mentioned that staple crops are part of cost-effective value chains as he believes nutrition-sensitive value chains must be effective and cost-efficient. It would be useful to learn more about these cost-effective value chains.

We can not agree more with you regarding many challenges which exist for nutrition-sensitive value chains: for example, perishability and seasonality of some nutritious food. We are glad to see that a solution was suggested to this challenge. A short value chain / local food is very important to meet nutritional needs of local population. Some of you concurred with some recommendations of the framework: multi-sectoral approach is required by going beyond the traditional value approach (commodity and market focused) and traditional approach to nutrition programming (public sector driven). The wholeness was another main point raised: shifting from a commodity focus that addresses one value chain at a time to an approach which addresses various value chains with the aim of improving diets in a holistic way.

All in all, the consultation started-off well. We look forward to hearing from many more of you and exploring further the role of value chains for nutrition.

We strongly encourage you to use this opportunity to share your experience and lessons learnt. Your contribution is very important to us.

Members of the Working Group on Nutrition-Sensitive Value Chains of Rome-based Agencies

## Rose Hogan, Trocaire, Ireland

Choice of crops - avoiding crops that are not consumed by the grower. When such crops are chosen (e.g coffee, cotton or cocoa), develop a complex multi-tiered agricultural (agro-forestry) system that mimics the environment and facilitates nutrition security by encompassing food crops. Avoid supporting value chain entrepreneurs who restrict farmers to growing monocrops, e.g companies promoting varieties of sorghum for beer in southern africa which do not allow undersowing.

## Morgane Danielou, Private Sector Mechanism, France

Private Sector Mechanism Position Paper

January 2017

Nutrition-Sensitive Agriculture

FAO defines nutrition-sensitive agriculture as a food-based approach to agricultural development that puts nutrient-dense foods, dietary diversity, and food fortification at the heart of overcoming malnutrition and micronutrient deficiencies. This approach stresses the multiple benefits derived from enjoying a variety of foods, recognizing the nutritional value of food for health. The overall objective of nutrition-sensitive agriculture is to promote healthy diets by better equipping food systems to deliver safe, affordable and nutritious food.

At every step, a wide range of participants in the agricultural and food value chain are working to improve nutrition and food security: from production of foods to improving storage and infrastructure, processing nutrient-dense food products and to clearly labelling nutrition facts. Improvements to the policy environment, market connectivity, land use, women’s economic empowerment, and adequate rural infrastructure also impact nutrition and health.

Achieving the Sustainable Development Goals and translating them into nutrition-related national objectives requires inter-related approaches to agriculture, nutrition and health policies. Sustainable, effective nutrition-sensitive agricultural initiatives also depend on enabling markets to support consumers, farmers, processors, and traders.

Finally, a more diverse and productive agricultural system that best nourishes citizens will in turn accelerate broad-based, sustainable economic growth. This growth strategy must be accompanied by investments in safety nets and education, nutrition, and health programs to ensure nutrition-sensitive agriculture benefits all people.

The PSM supports the following principles that enhance nutrition-sensitive agriculture:

* Building policy environments that secure access to nutrient-dense food through sustainable production for achieving adequate, safe, nutritious, diverse, and affordable diets. Make more food available and affordable, reduce malnutrition, and support income growth through:
  1. Increasing and diversifying agricultural production;
  2. Stimulating demand for nutrient rich agricultural products
  3. Enabling the development, dissemination and adoption of technological advances;
  4. Reducing food loss and waste (for example by improving storage, transport, processing and packaging to extend shelf life and reduce spoilage); and
  5. Promoting sustainable production practices (such as conservation agriculture, genetic selection and bio-innovation, crop diversification, water management and integrated pest and nutrient management, best animal husbandry, farm management and new farming systems, such as aquaponics, hydroponics and vertical farming systems).
* Supporting farmers with agricultural extension, access to inputs, research, and other production-related productivity improvements. Encourage practices that support crop diversification and efficient livestock production systems and associated investments that reduce unit-costs of production, increase farmers’ incomes, and decrease food prices. All these efforts have positive nutrition and economic growth effects and result in lower production risks for farmers and better nutrition for both farming families and consumers.
* Integrating smallholders in value chains. Private sector actors are key partners in enabling smallholder farmers to achieve better market access by increasing the quantity and quality of their production and connecting them to local, regional and global value chains. Private operators can also support smallholders to become entrepreneurs by facilitating access to sustainable production techniques through extension, market information and financial services, and solutions to overcoming infrastructure gaps[[1]](http://www.fao.org/fsnforum/activities/discussions/nsvc" \l "_ftn1).
* Empowering women. Good nutrition from a woman’s pregnancy and in the early years of her child’s life sets the foundation for a lifetime[[2]](http://www.fao.org/fsnforum/activities/discussions/nsvc" \l "_ftn2). Changes in food production technology that reduce demands on women’s time have been shown to improve nutrition by increasing time available for child care, food preparation, and accessing clean drinking water. They also improve the well-being of women. In turn, labor saving technological change in activities traditionally performed by women outside the food production system leaves more time available for food system activities. These include food production per se, but also better and more food processing as well as increased income generation through formal and informal food-system based employment.
* Supporting strategies on diversification, fortification and supplementation. The policy environment should recognize the nutrient-rich contributions of diverse foods, including from both plant and animal-sourced foods; as well as systems that improve or preserve the nutritional content of foods, either at the farm level (biofortification) or through marketing and processing (fortification and supplementation). Diversification of agriculture and food production is a key solution to increase availability and accessibility of a diverse and nutritious diet. When a diverse nutritious diet is not available or accessible, fortification and supplementation are key solutions to prevent nutrient deficiencies by enhancing nutrient content in foods. Nutrient deficiencies can be prevented by:
  1. Local production of nutrient-rich crops and animal-based food,
  2. Plant/animal breeding and crop diversification,
  3. Improved agronomic practice,
  4. Improved livestock management practices such as feeding to genetic potential
  5. Optimal soil fertility management and agronomic biofortification,
  6. Water conservation,
  7. Post-harvest storage, management and processing and
  8. Additional supplementation through food processing.

* Educating and informing consumers. It is essential to ensure that expanded and more diverse production and higher incomes translate into healthier diets and better nutrition, particularly for vulnerable populations. Ensuring access to nutrition information for mothers is essential in promoting good nutrition in families. Promoting marketing and advertising campaigns for food diversity can also increase demand for nutrition-sensitive food products.
* Reducing risk for agricultural investment and production. Crop insurance and catalytic investments can improve the long-term well-being of farmers and provide a stable platform for further improvements in production agriculture.
* Linking agriculture, nutrition and health communities. Effective nutrition-sensitive agriculture strategies will use a multi-sectorial approach that will build on the common expertise coming from agriculture, nutrition and health sectors.

Sources:

<http://www.fao.org/about/meetings/icn2/news/news-detail/en/c/261494/>

<http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2013/02/05/000356161_20130205130807/Rendered/PDF/751020WP0Impro00Box374299B00PUBLIC0.pdf>

<http://www.ifad.org/story/feature/nutrition.htm>

<http://www.fao.org/fileadmin/user_upload/agn/pdf/NutSensitiveFoodSystems_FINAL.pdf>

<http://www.ifpri.org/news-release/international-conference-focuses-improving-health-and-nutrition-through-agriculture>

<http://www.harvestplus.org/sites/default/files/R4A3_Smallholder%20Farming%20and%20Crop%20Variety%20Choice%20in%20Zambia_2015February.pdf>

[[1]](http://www.fao.org/fsnforum/activities/discussions/nsvc#_ftnref1) [PSM Position Paper on Smallholders’ Access to Markets](http://agrifood.net/position-papers/12-position-smallholder-access-to-markets/file)

[[2]](http://www.fao.org/fsnforum/activities/discussions/nsvc#_ftnref2) <http://thousanddays.org/>

## Lucy Quainoo, MEL Consulting Ltd, Ghana

Opportunities in Nutition Sensitive Value Chain Development:

Forming value chain actor cooperatives is key in nutrition-sensitive capacity building systems. This enables better communication strategies focused at a particular actor with niche capacity buiding techiques.

Enhancing traditional nutrition systems with geosensitive communication strategies to improve nutrition in the family, school, community and nation.

Needs assessment of geographical specific value chain and validation of knowledge based nutrition sensitive techniques in the light of changing times due to effects of climate change.

Exploring innovative ways of encouraging traditional and new nutritive information using the value chain actor as the initiator of the process

Challenges:

Resistance to change due to cross cultural differences and negative perceptions of innovation.

Branding the concept with different goals such as good nutitional values which may not necessarily mean making profit by food marketing MSMEs.

Financing nutrition-sensitive campaigns to production and aggregator value chain actors when breaking even and profit making in business is the goal and not necessarily campaigns which promote other perspectives which need more effort to convince their target audience.

## Stephen Machado, Oregon State University, United States of America

I apologize for not following the outlined framework on providing input as I want to make general comments.

1. Before talking about value chains, we need to make sure farmers can produce crops in the first place. In many regions of Africa, the land resource base has been degraded to a point where crop production is becoming impossible. So first we may want to think more about how to build soil health for sustainable crop production.

2. Most african small holder farmers grow food crops and in some cases in agroecological zones that are not favorable for those crops. Part of the value chain concept should be to encourage farmers to grow adaptable cash crops that they would inturn sell or trade for food. With some money in thier pockets farmers will be able to buy nutrition rich foods grown elsewhere

3. Not much is being said about indigenous fruits and food plants that are adapted to local conditions. In most cases these fruits and plants are nutrient dense and should be part of the VC equation. Programs should be put in place to harness these indigenous foods not only for home consumption but for sale to other parts of the world to generate income for local people. As it is, small scale holder farmers cannot compete with well subsidized farmers in developed countries with respect to major crops such as corn, rice, and wheat. Creating a niche market will make a big difference for Africa's small holder farmers

4.  Health can be improved through producing safe food. So right from the begining, farmers should produce crops using fewer chemicals as possible. This would lead to nutrient dense and safe food.

## Boris Karpunin, Federal Center for Agricultural counseling and Retraining, Russian Federation

**Original contribution in Russian**

Постановка COMMITTEE ON WORLD FOOD SECURITY проблем целей устойчивого развития и инклюзив производственно-сбытовых цепочек в обеспечении продовольственной безопасности и питания воспринимается как проект социальной справедливости в мировом масштабе. С этой точки зрения и стоит оценивать и обсуждать поставленные в документе проблемы. В идеале целью такой работы ООН может быть провозглашение в будущем право каждого человека Земли на качественное и полноценное питание независимо от его доходов и экономического развития его страны.

Концепция ОППСЦ очень хорошо и подробно разработана и вполне может быть реализована при определённых условиях. Здесь, по всей вероятности, следует ввести градации мер по обеспечению питания для стран и слоёв человеческого общества в зависимости от уровня экономического и социального развития территорий и стран. Всё изложенное в этом документе воспринимается как система взаимодействия отраслей, правительств, ООН, предпринимателей и т.д. , координация которой представляется сложной с неясной эффективностью в будущем. Причина заключается в огромных различиях между странами в способности реализовывать на практике меры по продовольственной безопасности. То есть возникает вопрос: кто и в каких объёмах будет финансировать ОППСЦ? Определённые механизмы прописаны в документе, но они явно недостаточны. Где будет финансирование и хорошая организация, там будет прогресс и наоборот. Существенный прогресс, тем более гарантии качественного питания каждому человеку, особенно в экономически отсталых странах под большим вопросом.

Надо более чётко разделить проблемы питания в разных странах. Считаю, что основной проблемой является голод, недоедание, некачественная пища, отсутствие качественной питьевой воды. На решение именно этой проблемы и надо направить усилия. Переедание, больше свойственное для богатых и успешных стран («золотой миллиард») больше проблема Всемирной Организации Здравоохранения, чем CFS.

Современное мировое сообщество, существуя в цивилизации, основанной на глобализме, на тотальном извлечении прибыли из любых человеческих потребностей и ставящее в подчинённой положение социальную составляющую жизни людей мало способно предложить системное решение проблемы обеспечения продовольствием. Маловероятно, что в условиях, когда 1% населения владеет подавляющим количеством материальных ценностей, у правительств возникнет желание и возможности обеспечить остальных хотя бы приемлемым питанием.

Поэтому, системным решением будет (используя представленную в документе концепцию) переориентация ООН на усиление финансовых позиций. Идеи могут быть самые разные, одна из них (самая экзотическая) заключается в наделении ООН финансовыми функциями по эмиссии новой международной валюты, используемой для обеспечения трансграничных расчётов наряду с долларом США, евро и т.д. Денежные средства, зарабатываемые на этой деятельности и возможности по эмиссии новой валюты должны расходоваться только на уставную для ООН деятельность, в частности, финансирование ОППСЦ. Если не сделать системных ходов по глобальному финансированию ОППСЦ, то декларируемое ключевое преимущество для потребителей «(4) сокращение стоимости продуктов за счет конкуренции и расширения производственно-сбытовых цепочек, которые позволяют задействовать более отдаленные производственные регионы с большими конкурентными преимуществами» в блоке 1 мне кажутся мало достижимыми. Основная проблема, если говорить совсем просто – как сделать бедных достаточно обеспеченными, чтобы они могли бы покупать себе хорошую пищу – трудно достижима предлагаемыми методами. Мы предлагаем разработать механизм не зависящего от конкретных стран общественного финансирования ОППСЦ, тогда описанный в документе механизм может работать и достигнуть своей цели.

**English translation**

Definition of challenges related to sustainable development goals and inclusive value chains for food security and nutrition, that were given by the COMMITTEE ON WORLD FOOD SECURITY, is seen as a social justice project at a global scale. The challenges stated in the document should be evaluated and discussed from this point of view. Ideally, the aim of such work of the UN can be the future proclamation of the right of each person living to a high-quality and nutritious food, regardless of the income and economic development of the country.

The NSVC concept is well-developed and detailed, and can be implemented under certain conditions. Most likely, it will require ranking of food provision measures for countries and different social groups, depending on the level of economic and social development of the territories and countries. The content of the document is perceived as a system of interactions between industries, governments, the UN, entrepreneurs, etc. Coordination of this system seems complicated and its efficiency in the future is unclear. The reason is huge differences in countries’ abilities to put food security measures into practice. Therefore, this poses the following question: who will provide funding for NSVC and in what amounts? Some mechanisms have been outlined in the document, but they’re definitely not enough. When there is funding and good management, there’d be progress, and vise versa. Significant progress and much less guarantee of high-quality foods for all, especially in economically backward countries, are doubtful.

Nutrition problems in different countries should be separated. In my opinion, the main reason is hunger, undernourishment, poor-quality food, lack of good-quality drinking water. We should devote efforts to addressing this particular challenge. Overnutrition, which is more common for rich and successful countries (the "golden billion"), is a problem within the competence of the World Health Organization, rather than of the CFS.

The modern global community, which exists in the context of a civilization based on globalism, on total extraction of profit from any human needs and that puts the social component of people's lives in a subordinate position, is not capable of offering a comprehensive solution to the food provision challenge. Given that 1% of the population owns an overwhelming amount of material values, it is unlikely that governments will have a desire and opportunity to provide the rest of the population with an adequate food at the least.

Therefore, a comprehensive solution would be (using the concept presented in the document) retargeting of the UN to financial positions strengthening. Ideas can be the most diverse; one of them (the most exotic) is to entrust the UN with financial functions to issue the new international currency, which will be used for cross-border settlements along with the US dollar, Euro, etc. All financial resources resulted from this activity, as well as opportunities to issuing a new currency, should be spent only on the UN-mandated activities, in particular, provision of funds to NSVCs. In my opinion, if we don’t make comprehensive moves towards global financing of NSVCs, the declared key benefits for consumers (“(4) reduced food costs due to competition and longer supply chains that allow sourcing from productive zones farther afield and those with the greatest comparative advantages” in the Box 1) would be difficult to achieve. To put it simply, the main challenge – how to make poor people adequately prosperous that they could buy themselves good food – is hard to achieve using the proposed ways. We propose to develop a public financing mechanism for NSVC, which will not be country-specific, then the mechanism described in the document would be able to work and achieve its goal.

Boris Karpunin

Federal Center for Agricultural Counseling and Retraining, Russian Federation

## Franck Hubert Ateba, Afrique Avenir, Cameroon

**Original contribution in French**

Bonjour,

Les enjeux pouvant se présenter au cours du développement d'une chaîne de valeur plus orientée ou sensible à la Nutrition c'est-à-dire capables de répondre aux défis Nutritionnels pourraient de mon point de vue être sommairement classés en deux catégories:

1. Les enjeux d'ordres quantitatifs:

Ceux-ci mettraient en exergue les défis liés à la production des produits alimentaires ou vivriers; la disponibilité de ceux ci; leur accessibilité et enfin leur compétitivité.

2. Les enjeux d'ordres qualitatifs: Sur ce point, l'apport en nutriments essentiels peut être considéré comme le défi majeur; ensuite les exigences sanitaire pour que le produit fini reste sain à la condemnations, parce que produit et transformé dans des conditions d'hygiène qui préserve aussi bien le producteur que void les autres maillons de la chaîne de valeur jusqu'à la table du consommateur final. Le respect de l'environnement devrait également être une préoccupation.

Ce qui permet d'envisager une saine, franche et sincère collaboration entre non seulement tous les maillons de la chaîne de valeur pour un commerce équitable garantissant la juste repartition du fruit de chaque effort, mais aussi et d'avantage les organes de contrôle de qualité et de normes sanitaire et de consommation.

Dès lors, l'aliment destiné à la consommation doit être traité au même titre qu'un médicament et les mêmes dispositions devaient lui être applicables tout en sachant faire le distingo sur la limite entre les deux.

Aussi, il ne serait pas excessif de voir des aliments au bout de la chaîne de valeur, sortir avec une itinéraire technique, une notice, etc.

Concernant les Opportunités pouvant se présenter sickies du développement d'une chaîne de valeur toujours plus orientée ou sensible à la Nutrition c'est-à-dire capables de répondre aux défis Nutritionnels, nous pouvons légitimement penser que les enjeux ci-dessus énumérés représenteraient d'importantes opportunités si et seulement si, les défis qu'ils soulèvent sont relevés.

Aussi l'amélioration de la production en quantité et en qualité, la disponibilité, l'accessibilité, et la compétitivité des produits finis seront sans contest des opportunités découlant d'une levée desdites contraintes et enjeux.

3. Quels exemples d'approche relative aux chaînes de valeur pouvez vous organist?

Au Cameroun, des tentatives de développement des chaînes de valeur existent dans plusieurs domaines tels que:

a. L'Agriculture: latransformation des dérivés du manioc (racines ou tubercule, et feuilles) aussi bien en produit alimentaires tels que le baton de manioc, le tapioka, le couscous, la bouillie et actuellement le gouvernement s'essaie à associer la production d'amidon à grande échelle.

De même, après avoir observé l'engouement autour des feuilles d'OKOK, une plante forestière très prisée par les bantous à qui plusieurs usages et vertus sont associés notamment laproduction d'alcool par lea inductriels de notre grand voisin le Nigeria, le gouvernement s'est lancé dans la domestication de cette plante.

L'expériencea s'est voulue s'étendre sur d'autres spéculations telles que la banane plantin dont la farine pourrait aisément supplanter la farine de blé dont nos pays dépendent pour avoir le pain incontournable pour toutes les familles; la pomme de terre au vue de la forte demande en chips; etc.

Il faut observer ici que nos gouvernements n'enticipent pas sur la mise en place d'un cadre réglementaire. Ce n'est qu' après coup que des dispositions se prennent, malheureusement pas dans le sens de développer la production ou encourager l'émergence de la chaîne de valeur; mais d'avantage pour avoir le contrôle totale de la manne supposée ou tirer des subsits en terme de taxes.

Dans la plupart des cas, l'argent réservé pour développer ces projets est soit détourné par les fonctionnaires en charges de coordonner lesdites initiatives, soit octroyé aux individus n'ayant aucun lien ni connaissances avec l'initiative.

3.2. Concernant le model de partenariat PPP, pour le développement des chaînes de valeur, celui est encore au stade de voeux pieux parce que l'expression semble être à la mode et son évocation tel un slogan suffit à elle seule pour justifier les incompétences notoires et la panne d'initiatives véritables à même de donner des résultats probants qui satisfont les nombreuses attentes. Ainsi les aacteurs étatiques ou publics évoquent les PPP pour faire intelligent pour des initiatives vide de sens et de contenu. Ainsi ils pourraient se dédouaner en cas d'échec évident.

Or, cette approchec'est la solution en ce sens que le développement des chaînes de valeur ne peut se réaliser que dans un environnement balysé par la régulation dans l'optique de faciliter la saine expression concurrentielle qui garantisse l'éthique et l'équité. Mais dans un contexte d'État mafieux ou voyou comme chez nous en Afrique, pour la plupart des pays, aucune crédibilité ne peut être accordé sans vérification ni contrôle en amont.

4. Quelles sont les leçons qui peuvent en être dégagées? La première leçon est qu' un énorme potentiel existe et qu'il faut impérativement mettre les gens au travail pour définir le cadre, l'environnement et les priorités.

En suite, structurer les acteurs Non-Étatiques selon la chaîne de valeur correspondant pour les mettre en production. Et après quoi définir les normes et standares de base ainsi que les mécanismes de contrôle des paires ou une régulations flexible qui associe une société civile forte.

Le ressencement des niches et potentiels inconus ou inexploité jusqu'ici en terme de denrées forestières commestibles ainsi que deséchanges et partages de connaissances, expériences et acquis en organisant des foires gastronomiques interrégionales ou continantales. Celà va permettre la diffusion des habitudes et cultures nutritionnelles et le messenger des modes d'alimentation entre les peuples.

La meconnaissance des environnements et usages traditionnels ou culturel est un frein à la diffusion ou la duplication des technique de développement des certaines chaînes de valeur pour des produits alimentaires spécifiques. Mais la vulgarisation des modes et coutumes alimentaires peut être un élémentsdéclencheur d'une diffusion plus rapide et de nature à enrichir l'offre quantitative et qualitative des produits alimentaires spécifiques  à forte valeur nutritionnelle.

Si is nouriturevoyage sans visa, elle deva au moins être"vaccinée" et des études socioentropologiques favoriser également pour dégager des incidences humaines, morphologiques, développement de l'intelligence ou des capacités intellectuelles; la longévité et d'autres spéculations y relatives...

**English translation**

Hello

The challenges which might arise during the development of a value chain more orientated or sensitive to nutrition, that is, capable of responding to nutritional challenges could, in my view, be summarized into two classifications:

1. The quantitative challenges:

These emphasize the challenges linked to the production of food or subsistence products; their availability; their affordability and finally their competitiveness.

2. The qualitative challenges: On this point, the contribution of essential nutrients can be considered as the major challenge; followed by the requirements of cleanliness so that the final product stays free of condemnation, because the product is transformed in hygienic conditions which are as well maintained by the producer as the other links in the value chain up to the table of the final consumer. Respect for the environment should equally be a concern.

In this way, we can envisage a healthy, open and sincere collaboration between not only all the links in the value chain for a fair trade which guarantees the proper sharing out of the benefits of each contributory effort, but also, and more importantly, between the agencies for quality control and sanitary and consumption standards.

Henceforth, food destined for consumption should be treated in the same way as a medicine and the same regulations should be applied, while at the same time knowing how to set the limit between them.

Furthermore, it would not be excessive to see food emerge from the value chain with a technological itinerary, advisory notes, etc.

Concerning the opportunities, which could arise in the course of the development of a value chain more orientated or sensitive to nutrition, that is to say able to respond to nutritional challenges, we might reasonably think that the issues listed represent important opportunities, if and only if, the challenges that arise are overcome.

In addition, the improvement of production in quantity and quality, of the availability, affordability and competitivenes of the finished products, will be beyond dispute opportunities arising from the overcoming of these constraints and challenges.

3.  What examples of nutrition-sensitive value chain approaches can you share?

In Cameroon, attempts at development of value chains exist in several applications, such as:

Agriculture: the transformation of cassava derivatives (roots or tubers, and leaves), as well as food products such as the cassava stick, tapioca, couscous, porridge and, at present  the Government is trying  to organize the large scale production of starch.

Likewise, after observing the enthusiasm about OKOK [Gnetum Africanum] leaves, a forest plant much valued by the Bantu people to which many uses and benefits are associated, in particular the production of alcohol by industrialists from our large neighbor Nigeria, the Government has begun the domestication of this plant.

It is wished to extend this experience to other ventures such as the plantain, whose flour could easily replace the wheat flour on which our country depends to make bread, essential to every family; the potato, considering the high demand for chips; etc.

It is important to notice here that our governments do not put in place in advance a regulatory framework. It is only afterwards that regulations are applied, unfortunately not in the sense of production development or to encourage a value chain to emerge; but rather to take total control of the supposed godsend or to extract benefits in terms of taxes.

In the majority of cases, the funds set aside for developing these projects are either diverted by the officials in charge of coordinating the said initiatives, or awarded to individuals  having no connection with or knowledge of the initiative.

3.2 Regarding the PPP [Private –public partnership] model of partnership, for the development of value chains, this one is still at the stage of wishful thinking because the expression seems to be in fashion and its evocation such a slogan that by itself it is enough to justify notorious incompetence and the failure of true initiatives while at the same time giving convincing results which satisfy many expectations. In this way, state or public officials evoke the PPPs in order to make initiatives, void of sense and content, look sound. Thus they can clear their name in case of evident failure.

However, this approach is the solution in the sense that value chain development can only be achieved in an environment   circumscribed by regulation with a view to facilitating the healthy expression of competition that guarantees ethics and fairness. But in the context of a mafia or delinquent State like here in Africa, for the majority of countries, no credibility can be given without prior verification and audit.

4. What lessons can be learned from this? The first lesson is that there is an enormous potential and that it is essential that people are put to work to define the framework, the environment and the priorities.

Next, structure the non-government actors according to the corresponding value chain in order to make them productive. And then, to define the basic norms and standards as well as the mechanisms of peer control or a flexible regulation backed by a strong civil society.

Create an inventory of niches and unknown or until now unexploited potentials, in terms of eatable forest foods as well as exchanges and sharing of knowledge, experiences and benefits by organizing inter-regional or intercontinental food fairs. That will foster the sharing of nutritional habits and cultures and carry the message about ways of feeding between people.

Ignorance about traditional or cultural environments and practices is an obstacle to the spreading or duplication of the development techniques of certain value chains for specific food products. But popularization of eating habits and customs can be a liberating factor in a more rapid spread and likely to enrich the quantitative and qualitative offer of especific food products with strong nutritional value.

If the food travels without a visa, it should be at least “vaccinated“ and socio-anthropological studies equally given emphasis in order to expose the repercussions  on humans, morphology, development of intelligence or intellectual capabilities; longevity and other related speculations..

Attachment :

<http://www.fao.org/fsnforum/sites/default/files/discussions/contributions/projets%20agropol%20de%20l%27Aquaculture%20intensive%20en%20zone%20CEMAC.doc>

## Dhanya Praveen, Environment Protection Training and Research Institute, Hyderabad, India

Thank you for the opportunity.

The producing companies should take into account all the aspects of value to the consumer needs (nutritional and economic ). This is possible only through enhancing the capacity and awareness level. In India, its essential to develop value chains to improve nutrition. There are multiple actors at multiple levels that have responsibilities to this value chain. Strategies need to be developed for strengthening coordination among the key players. There need to be convergence of schemes, not within the department but also converge the various sectors and the actors who are working to help the farmers and customers.

The need of improving the quality of value chains for nutrition enhancement links to a series of integrated processes starting with rainwater and watershed management, improved input use efficiency, soil health management, need-based fertilizer recommendation, integrated weed and nutrient management, pre- and post-harvest management, agro processing and value addition etc. Periodical assessments of value chain analysis need to be carried out for effective functioning and enhancing viability to benefit ordinary (below average and average) customers.

## Ann Steensland, Global Harvest Initiative, United States of America

Pathways to Agricultural Productivity and Nutrition

By Ann Steensland

Deputy Director, Global Harvest Initiative

Reducing malnutrition and obesity are essential for economic productivity and growth, particularly in agriculture. Malnutrition leads to stunted physical growth, cognitive impairments and increases the risk for chronic disease, all of which make farmers less productive and make it more difficult for people in rural communities to develop off-farm enterprises.[[1]](http://www.fao.org/fsnforum/activities/discussions/nsvc#_ftn1)

To meet targets for reductions in stunting (low height-for-age), wasting (low weight-for-height) and women’s anemia, and to increase exclusive breastfeeding in low- and middle-income countries, the World Bank estimates that governments will need to increase their nutrition-related expenditures by a factor of 2.3 over 10 years and donor funding will need to increase by a factor of 3.6 in the same period, for a total investment of $70 billion.[[2]](http://www.fao.org/fsnforum/activities/discussions/nsvc#_ftn2)

While both men and women have roles to play in reducing malnutrition in the household, women are more likely to spend money on “reproductive” goods, such as nutritious foods, school fees or health care. Increasing a woman’s income through productivity gains and access to agricultural markets can improve the nutritional status, health and earning potential of herself and her family. **Still, recent studies have shown that the linkages between agriculture, women’s empowerment and nutrition are not always straightforward.**[[3]](http://www.fao.org/fsnforum/activities/discussions/nsvc#_ftn3)

Increasing agricultural productivity requires two things that most poor women lack: financial resources to purchase productive inputs and time to learn new skills or develop new markets for their products. Without resources to buy productive inputs such as hybrid seeds, herbicides or irrigation technologies, a woman will spend more time planting, weeding and harvesting to increase her output. She may also spend time marketing and selling her products, further reducing the number of hours she has for reproductive tasks, such as childcare, eldercare, cooking and housekeeping, which in most contexts she will still be expected to perform.

A study of agriculture-nutrition linkages in Zambia found that for the poorest households the best agricultural pathway to improving nutrition is for women to increase the production of nutrient-dense foods.[[4]](http://www.fao.org/fsnforum/activities/discussions/nsvc#_ftn4)  If women have access to assets or credit and can purchase time-saving agricultural inputs, the best pathway to improving nutrition is increasing the production of cash crops or high-value crops, such as fruits and vegetables, using the increased income to purchase nutritious foods. **While circumstances vary greatly from one community to another, research in Africa and Asia confirms that identifying women’s time and resource constraints is essential to improving both agricultural productivity and maternal and child nutrition.**

For more on the  linkages between agriculture, gender and nutrition, see the [2016 Global Agricultural Productivity Report® (GAP Report®)](http://www.globalharvestinitiative.org/index.php/gap-report-gap-index/2016-gap-report/), pages 56-58.

[[1]](http://www.fao.org/fsnforum/activities/discussions/nsvc#_ftnref1) John Hoddinott, Harold Alderman, Jere Behrman Lawrence Haddad, and Susan Horton, “The Economic Rationale for Investing in Stunting Reduction,” GCC Working Paper Series, (September 15, 2013).

[[2]](http://www.fao.org/fsnforum/activities/discussions/nsvc#_ftnref2) M. Sheka, J. Kakietek, M. D’Alimonte, D. Walters, H. Rogers, J. Dayton Eberwein, S. Soe-Lin, and R. Hecht, Investing in Nutrition: The Foundation for Development,” The World Bank, (2016).

[[3]](http://www.fao.org/fsnforum/activities/discussions/nsvc#_ftnref3) Hitomi Komatsu, Hazel Jean Malapit, and Sophie Theis, “How Does Women’s Time in Reproductive Work and Agriculture Affect Maternal and Child Nutrition?,“ IFPRI Discussion Paper 01486, (December 2015) and Hazel Jean Malaput and Agnes Quisumbing, “What Dimensions of Women’s Empowerment in Agriculture Matter for Nutrition in Ghana?” Food Policy, Vol. 52, pp. 54-63, (April 2015).

[[4]](http://www.fao.org/fsnforum/activities/discussions/nsvc#_ftnref4) Rhoda Mofya-Mukuka and Christian Kuhlgatz, “Child Malnutrition, Agricultural Diversification and Commercialization among Smallholders in Eastern Zambia,” Indaba Agricultural Policy Research Institute Working Paper 90, (January 2015).

6 Hoddinott et al., (2013).

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

Dear All

As to me, first of all the national government, extension service delivery and NGOs working in the field of food security must have conceptual clarity to address food security including the 3 pillars (food availability, access and utilization) because malnutrition is often observed even in surplus producing areas.

The 2nd critical issue preventing food loss and maintaining food safety. Due to lack of appropriate storage facilities, transportation mechanisms the produced food are often lost and their quality and safety are compromised. This in turn affects nutrition. Perishable products such as vegetables and fruits do not have optimum cold storage until, suitable packing and transporting mechanism. As a result they cannot be kept for long due to their vulnerability for damage and nutrition loss.

Absence of market information along the value chains also force producers for any price the buyer is willing to give. Here, the brokers gain more than the producer. Appropriate storage, market information, setting floor price would have saved the producer (this is done for cereals, coffee etc, but not for vegetables and fruits).

The other critical area is the application of pesticides/fungicides. Urban agriculture in the outskirt of big town uses rivers that are sometimes polluted from biproducts and wastes coming from industries. This pollutes the vegetable. Some pesticides also have residual effect unless there is adequate days between pesticide application and harvesting of the vegetables to bring them to the market

Hence, if nutrition, food safety and reasonable gain to the producers are expected the above mentioned factors should be seen along the value chain.

Takele Teshome

## Florence Egal, Food Security and Nutrition expert, Italy

The consultation states clearly that VCs are only one dimension of food systems, which is of course correct, but therefore remains biased towards the classical supply driven approach and risks reinforcing the prevailing confusion between food chains and food systems. The paper should therefore consider providing the rationale and a roadmap for reorienting food systems as an integrating concept for Agenda 2030.

There is now increased awareness that value chains have contributed so far to increased malnutrition through monotonous or unbalanced diets, increased socio-economic differences - and therefore poverty and marginalization – and dependence on food imports, erosion of biodiversity and environmental degradation. There is therefore certainly scope for drastic improvement.

The paper rightly mentions the need to go beyond the economic assessment of VCs. Too often economists keep mentioning food import as the cheapest option. It is urgent to revisit subsidies and incorporate environmental and social costs. Long food chains too often undermine local livelihoods.

Legal and regulatory frameworks need to be reviewed and adapted to integrate human rights. In recent years adoption of locally inappropriate standards, norms and regulations have eroded livelihoods of small-scale producers.

Consumers are not always equipped to adapt to change and make the right food choices. And they are often misinformed through inappropriate marketing. This aspect needs strengthening.

In recent years the promotion of fortified foods for improved nutrition has de facto resulted in marginalizing local food systems and increased cosnumer dependence on imported foods. It is essential that the impact of such VCs on small scale food producers be monitored.

In recent years, spread of hypermarkets and public-private partnerships have resulted in increased concentration of food distribution. And cash transfers have encouraged beneficiaries to change their food practices, in particular through shifting food purchasing from traditional retailers to super markets.

The paper makes no reference to sustainable use of biodiversity (see Bioversity International), retrieval of indigenous knowledge, supporting local products, traditional food systems and value chains. Priority should be given to local markets and short food chains to relocalize diets and food systems. Small-scale food processing is essential for local diets, employment and resilience. While there will always be a need for national, regional and international trade (and in particular fair trade), it is urgent to relocalize agriculture and support local food systems to counterbalance the trends in the last decades.

And last but not least, it is urgent to make an inventory of and review relevant local practices with a view to generate practice-based evidence. Applying the IPES food research principles.

Apologies for not answering the questions but both framework and questions seem geared to justify a narrow set of classical top down interventions.

## Sangeetha Rajeesh, LANSA Consortium, MSSRF, India

Dear all,

I would like to share with you some material produced by LANSA (Leveraging Agriculture for Nutrition in South Asia), a multi-partner research effort led by the MS Swaminathan Research Foundation in Chennai, India.

LANSA has published a conceptual framework of agri-food value chain interventions aimed at enhancing consumption of nutritious food by the poor, to guide the analysis of value chain-based interventions aimed at enhancing the intake of micronutrient-dense foods in Bangladesh, India and Pakistan.

You can access the document here: <http://bit.ly/2oggt6Y>

In addition, LANSA has also published three separate reviews of the current situation in Bangladesh, India and Pakistan, examining agri-food value chain interventions under three categories: naturally nutrient-dense food, foods of increased nutritional value and food distribution.

The studies are available here:

India: <http://bit.ly/2nRYGQA>

Pakistan: <http://bit.ly/2oINl9t>

Bangladesh: <http://bit.ly/2oMbETr>

I hope that you will find this information interesting and useful, please do not hesitate to share them widely.

Best regards,

Sangeetha

Sangeetha Rajeesh  
Research Uptake Manager & Communication Specialist  
Leveraging Agriculture for Nutrition in South Asia (LANSA)

## Working Group on Nutrition-Sensitive Value Chains of the Rome-based Agencies

The second week of the consultation has brought insightful and interesting comments from the participants. The members of the RBA WG on VC and nutrition would like to, first of all, thank the contributors for their participation. A number of reflections revolved around the challenges and opportunities that arise when a nutrition-sensitive lens is applied to VC development, while also highlighting a number of areas of tension and convergence.

Contributors have noted the potential for a value-chain approach to focus on single commodities that may not contribute to improved nutrition and may exacerbate the downsides of monocropping and reinforce the lack of agro-biodiversity.  The more inclusive approach described in the framework highlights the importance of bringing demand and nutrition considerations into the analysis, helping to identify interventions meant to address these nutrition problems. This aspect is perhaps more forcefully presented in two of the references underlying development of the framework (Gelli et al., and De la Peña, Garrett, and Gelli).  Short value chains, attention to local markets, and the use of neglected and underutilised crops are key elements of the NSVC framework that could be emphasized more.

The comments also emphasize the need to place the framework, which focuses on VCs as part of an overall approach to development, more firmly in the context of food systems and the surrounding enabling environment.  For example, while understanding the usefulness of a VC approach, Bioversity International promotes a “multi-chain” approach as part of a development strategy for smallholders.  Diversity in production, marketing, and consumption can help improve the robustness of production systems, the provision of environmental services, and healthy diets. This can also help to support gender and inter-generational equity ([www.bioversityinternational.org/initiatives/healthy-diets/](http://www.bioversityinternational.org/initiatives/healthy-diets/) and [www.bioversityinternational.org/news/detail/enhancing-benefits-for-smallholders-across-biodiverse-value-chains/](http://www.bioversityinternational.org/news/detail/enhancing-benefits-for-smallholders-across-biodiverse-value-chains/)).

The framework should pay more attention, the contributors also seem to suggest, to issues of indigenous knowledge, women, environmental sustainability, and the multiplicity of actors involved in making value chains work for nutrition.  This last observation raises important questions about VC governance:   What are the interests among the different stakeholders along the VC?  What are the activities that each one should do? How might this vary by political, economic, institutional, and social context?  What incentives or disincentives do the different actors have?  And what sorts of policies, programs, or mechanisms are needed to help ensure coherence and effective actions among them, including issues of information, capacity, and coordination, to ensure that the value chains that are developed function so as to benefit the nutrition of the most vulnerable? Responsibility and accountability seem to be key here.   And while the framework mentions the need for monitoring and evaluation, one participant argues that, in fact, periodic assessments (and so, it seems, consistent monitoring over time) need to be carried out.

The role of the private sector seems to one particular area that should be explored in more depth.  Some participants caution about the risks associated with PPP and emphasize the need to ensure actions go beyond an economic assessment of VCs and focus on the nutritional needs of consumers. The Private Sector Mechanism Position paper includes interesting strategies to be promoted to link agriculture, nutrition and health.  The private sector is undoubtedly a key player in the development of VCs and, indeed, of entire food systems, beginning with smallholders for whom farming is a livelihood and a business.  We would be interested in knowing more about experiences or approaches to share about how to make VC governance more effective that take these considerations into account.

The issue of food loss and food safety (especially for perishable crops) was mentioned by several contributors as a key dimension that needs to be considered at all stages of the VC. The RBA WG shares these views and would like to reinforce the importance of hygienic and safe handling along the VC to ensure that nutritious and safe food is made available for human consumption. As pointed by some of you, strict regulations on food safety may, however, exclude smallholder farmers from the VC, as the small producers may not have the resources or capacity needed to comply with such requirements. We would be grateful for any experiences that have successfully managed this trade-off between food safety and inclusion of smallholder producers.

Another member of the group brought an essential dimension to the debate: women's empowerment. As rightly mentioned, there are not only opportunities but also risks for household nutrition if women's resources and time constraints are not carefully considered. The [discussion paper](http://www.fao.org/3/a-mr587e.pdf) (paragraph 10) points towards the implications of women's empowerment as a key mediator of impact on nutrition, not only in terms of time and resource constraints, but also in terms of the impact on their own health and nutritional status. Clearly there is a need to unpack this dimension of the framework and further explore the linkages between women's empowerment, agricultural VCs, and nutrition.

Your contributions are of great value to us. We appreciate the effort of those of you who have read the discussion paper, and welcome your views on how we may render it more operational.

As noted, we are very eager to hear about examples on the ground, initiatives that have been successful in developing VC to enhance nutrition, as well as interventions that have failed and provide useful lessons for future action. Thanks again for your contributions and for allowing us to learn from your ideas and experiences.

## Mar Maestre, Institute of Development Studies, United Kingdom

Dear all,

Following the post below from Sangeetha, I want to highlight the role that markets, informal sector and SMEs play in ensuring nutrition-sensitive value chains.

On the framework we have developed, as part of LANSA, we have focused on assessing the pathways for delivery of nutritious foods (what we are calling post-farm gate). The [framework](http://dx.doi.org/10.1016/j.foodpol.2016.12.007) can be used by practitioners, donors, policy makers, to understand how to make agricultural value chains and markets more efficient when delivering nutritious food. It starts assessing the value chain from the consumer  perspective (analysing if the targeted households are choosing to purchase and eat the nutrient-dense target food) and then assesses the supply side (looking if tehre are aligned interests for actors, both private and public, to produce and distribute the products).

The framework has been used for 12 case studies in South Asia, assessing different market pathways (food fortifcation, promotion of dairy value chains, social enterprises, public-private partnerships, pulibc distribution of food). We will be presententing the initial findings **on 25-26 April,**including all the example and specific recommendations. Please, [**RSVP**](mailto:m.maestremorales@ids.ac.uk)**by 17th April to confirm you place**.

## Kouakou Valentin Kra, Université Alassane Ouattara, Côte d’Ivoire

**Original contribution in French**

**Kouakou Valentin KRA  
Université Alassane Ouattara  
Côte d’Ivoire**  
  
**‘’Comment faire en sorte que les chaînes de valeur contribuent à améliorer la nutrition ?’’ : Le cas de la Côte d’Ivoire en Afrique de l’Ouest.**  
  
L’Afrique connaît une croissance démographique et une urbanisation rapides depuis la fin du XX e siècle. Dans ce contexte, les besoins alimentaires sont de plus en plus grandissants et le monde rural ne parvient plus à répondre efficacement à la problématique vivrière ; en raison des conditions bioclimatiques défavorables, l’exode rural et la question foncière. L’agriculture intra-urbaine et singulièrement le **maraîchage** se présente dès lors comme une alternative importante pour garantir la sécurité alimentaire. Ce type d’agriculture et principalement le maraîchage intra-urbain occupe une place primordiale dans la chaîne de valeur favorable à la nutrition. Sa proximité avec la ville, son accessibilité à toute période de l’année, ses réponses adaptées aux habitudes alimentaires induites par l’urbanisation et l’occidentalisation des populations africaines font de ce type de maraîchage la plus importante chaine de valeur favorable à la nutrition.  
  
Cependant, en ce qui concerne la Côte d’Ivoire, cette agriculture et donc le maraîchage intra-urbain reste encore dans l’informel, la précarité et n’est pas prises en compte dans les politiques de gestions des villes. Les agriculteurs ne disposent pas d’espace sécurisé pour leur activité et sont contraints de squatter les terrains laissés en friche dans les rares bas-fonds des villes. La question foncière urbaine se présente comme la véritable problématique à laquelle est confronté le maraîchage dans nos villes ivoiriennes. Ainsi ces espaces hydromorphes qui en principe sont des zones inconstructibles sont de plus en plus lotis, vendus à de nouveaux acquéreurs et construits. Dans certains cas, ils sont transformés en décharges pour ordures ménagères à ciel ouvert. Le maraîchage fait de plus en plus place aux constructions anarchiques et aux ordures ménagères. D’ailleurs ces dernières polluent les eaux d’arrosage et constituent des risques sanitaires énormes pour les consommateurs. Cette activité est rendue précaire et vulnérable en raison des politiques de gestion de nos villes africaines qui restent encore passives, voire indifférentes en ce qui concerne l’agriculture intra-urbaine.  
  
Les enjeux fonciers et urbanistiques sont contraignants et constituent des entraves sérieuses pour le maraîchage intra-urbain ; gage de la chaîne de valeur favorable à la nutrition dans nos villes africaines et ivoiriennes en particulier. Comment faire pour pérenniser et sécuriser ce type d’agriculture en Côte d’Ivoire? Il convient entre autres de :

* sortir l’agriculture intra-urbaine de l’informel ;
* sécuriser les espaces agricoles intra-urbains et singulièrement les bas-fonds maraîchers ;
* faire intervenir des structures de développement agricole en vue de l’encadrement des agriculteurs ;
* prendre en compte l’agriculture intra-urbaine dans les politiques de gestion des villes ;
* subventionner cette activité.

La prise en compte de ces propositions s’avère indiquée pour les pays africains au sud du Sahara et principalement la Côte d’Ivoire ; pays où nos recherches sont menées. Cela est important d’autant plus que l’agriculture intra-urbaine ; en plus d’être une chaîne de valeur favorable à la nutrition, se présente comme un secteur pourvoyeur d’emploi et de lutte contre la pauvreté.

**English translation**

**Kouakou Valentin KRA  
Université Alassane Ouattara [Alassane Outtara University]  
Ivory Coast**

**How can value chains be shaped to improve nutrition? The case of Ivory Coast in West Africa.**

From the end of the 20th century, Africa has experienced rapid demographic growth and urbanization. In this context, the food requirements are growing ever more and the rural areas no longer provide an efficient response to the food-producing problem; due to unfavorable bio-climatic conditions, rural exodus and land tenure issues. Intra-urban agriculture and, in particular, market gardening now becomes an important alternative in order to guarantee food security. This type of agriculture and, mainly, intra-urban market gardening, occupies an important place in the value chain favorable to nutrition. Its proximity to the city, its accessibility at all times of the year, its responses adapted to the ways of feeding brought about by urbanization and westernization of the African population make this type of market garden the most important in the value chain favorable to nutrition.

However, as for the Ivory Coast, this agriculture, and therefore, intra-urban market gardening is still informal, precarious and is not taken into account in the policies for management of the cities. The producers do not have areas reserved for their activity and are forced to squat on the land unfarmed in the infrequent low lying areas of the cities. The land tenure issue is the real problem faced by market gardening in our Ivorian cities.  Thus, these swampy areas which in principle are non-building areas, are more and more divided into plots, sold to new owners and built on. In some cases, they are turned into open air household garbage dumps.  Market gardens more and more give way to uncontrolled constructions and household waste. Moreover, the latter pollutes the irrigation water and are a grave sanitary risk for consumers. Market gardening is made insecure and vulnerable due to the management policies of our African cities which remain passive, let us say indifferent, with regard to intra-urban agriculture.

The urbanization and land tenure issues are restrictive and amount to a serious hindrance for intra-urban market gardening; benchmark for the value chain favorable to nutrition in our African and in particular Ivorian cities. What can be done to sustain and protect this type of agriculture in Ivory Coast? It will be useful among other things:

* to take intra-urban agriculture out of the informal sector;
* to protect intra-urban agricultural areas and in particular market gardens in low- lying areas;
* to involve agricultural development structures in order to organize the farmers into a system;
* to take intra-urban agriculture into account in the management policies of our cities;
* to give subsidies to this activity.

Taking account of these propositions would seem to be indicated for the Sub-Saharan countries and especially for Ivory Coast; the country where our investigations have been carried out. What is all the more important than just intra-urban agriculture is that, as well as, being a value chain favorable to nutrition, it is a sector which provides employment and fights against poverty.

## Eduardo Mosquera Llanos, +Ambiente, Colombia

**Original contribution in Spanish**

Las cadenas de valor no unen sus eslabones en los territorios debido a la falta de presencia efectiva de los gobiernos, esto hace que el campesino no tenga el conocimiento y la infraestructura indispensable para tomar desiciones constructivas de un sistema de seguridad alimentaria sostenible.

**English translation**

Value chains do not join up links in the territories due to the lack of effective government presence. Hence, farmers do not have the necessary knowledge and infrastructures to make constructive decisions for a sustainable food security.

## Waddilove Sansole, SNV, Zimbabwe

The discussion paper does bring into perspective the concept and the important facets of an NSVC especially on taking a multi-dimensional approach towards achieving NSVCs. There will be a need to consider that in order to achieve significant levels of nutrition, integration of more than one food system/commodity will become pertinent; however for some developing countries this could pose a challenge and an opportunity simultaneously. The challenge being that different food systems/commodities have differing value chain dynamics that they have to navigate, therefore creating a complex system around trying to promote NSVCs. On the opportunity side it prompts engagement with the relevant policy makers to enable promotion and adoption of NSVCs, this can include considering smart incentives for those with a deliberate strategy of integrating enhanced nutrition into their value chains in the same way that there are incentives for protection of the environment, this could hold true for nutrition senitivity.

To also ensure that nutrition is not just a by-word; there will be need to promote sensitivity right from the production level; for example for the Maize Value Chain- promoting cultivation of Quality Protein Maize (QPM) could form a first stage activity to ensure that communities that consume maize as staple are receiving adequate nutrients. Therefore the process of value addition will not affect the nutrient composition of the finished product.

Developing a business case for the role of private sector/SMEs around the nutrition nodes of a VC like blending and fortification, will also go along way in demonstrating that there is value in using an NSVC lens when developing VCs; there is need to also demonstrate that there is no subsequent increase in production costs as the food will not be affordable to the low income segments. Parallel to all this, nutrition awareness and labeling should form a greater part of business model development in order to promote and generate demand for consumption of the nutritious foods.

Finally there will be need to consider the maturity stage of the VCs as this could be a great determinant for the adoption of a NSVC lens as well as promotion of consumption of high nutritious foods. Some VCs could be ready for nutrition sensitivity, whilst some need to still come full circle to quality product development first, then into the next stage of nutrition sensitivity (blending and fortification). Not to say that some VCs can not outrightly develop as NSVCs from the onset.

## Gildas Tiwang, Cameroon

I wish to point out the contribution of a better management of farming contrats between cooperatives (hundreds of farmers), agribusinesses (processing units) and financial banks. The idea is that the producers should be able to express his needs to the agribusiness, and also to receive part of the final produce from the agribusiness.  
My opinion is introduced below.

**CONTRIBUTION OF CONTRACT FARMING IN THE IMPROVEMENT OF THE NUTRITION THROUGH VALUE CHAIN MANAGEMENT**

This paper points out the proposal of «an improvement of food and nutrition through a better management of value chain using contract farming » from a Farmer + Agribusiness + Bank nexus.

The organization of producers into cooperatives makes it easy for agribusinesses

(who do the processing of their productions) to follow them up in their activities at the production level in other to guarantee the supply of their productions to the above. On the field, the agribusiness, which is credible at the level of conventional banks take loans, and give to the cooperatives (association of hundreds of small farmers). These farmers in return satisfy the agribusiness with a supply on time, quality, standard, and quantity with the inputs mandatory for the sustainability of activities of these agribusinesses.

We should arrive to a situation where an agribusiness gets part of its production command order from the FARMERS who supply the main input. This command of finished products from farmers stands as an expression of their needs. Practically, from the production and supply, the payment by the agribusiness to the producers should be special. The first payment should be a given percentage of agricultural inputs for the new farming season. The second part of their payment should be paid in term of processed food from their produce like nutritional drinks, cakes, oils, flour, drinks, etc. The third payment should be in cash. For the case of maize for example, the farmers supplying the maize should first express their needs, and this should constitute the best argument to select the agribusiness partner, the sale of their products should follow the normal process but the payment should be done at x% in kind of processed products obtained. For the case of maize, payment should be done in terms of flour, nutritional cool drinks, nutritive supplements, cakes, food drinks, etc. The second part of the payment should be in terms of inputs needed for new production campaign, and lastly the third part should be paid to the farmers in cash.

To conclude, this nexus will be facilitated if there is a fourth partner (an international organization or government institution) that will help the agribusiness if the bank’s procedure is taking a longer time. This partnership will have as consequences, an increase in production of food, a better orientation of agribusinesses (processing unit) to the needs of populations, an improvements of wellbeing of producers through a better enjoyment of their produces and lastly a sustainable agricultural activities.

## Hélène Delisle, University of Montreal, Canada

Many interesting comments were already made. I only want to briefly add a few minor and very down-to-earth points:

- Household food security, objective and subjective, as well as quantitative (enough food) and qualitative (enough diversity and nutritional adequacy), could be considered as prominent indicator of successful nutrition-sensitive value chains for the food systems.

- Beyond food production, adequate transport and processing are essential to limit food losses and enhance the nutritional value of local foods. Local and efficient (and limited) processing of local foods may not have received the attention it deserves, for instance in French-speaking West Africa, possibly because of the competition by international food industries which reap the profit margins of food processing.

- Nutrition-sensitive food processing technologies exist but may not be adopted, perhaps because of their cost. Let me give 3 examples: 1) The technology for refining red palm oil while preserving its natural antioxidans including provitamin A carotenoids was developed in Malaysia. Why is it not used for instance in Côte d'Ivoire? 2) I am not sure that  parboiling in order for the rice to retain some of its B-vitamins is used in African firms processing the rice; 3) Lactic fermentation, sprouting and dextrinization could be more widely used in food processing, particularly for the industrial or semi-industrial development of local complementary foods with enhanced nutritional value.

## Adebayo Depo, Togo

**Original contribution in French**

Je suis DEPO Adébayo, Ingénieur Agronome.  
  
1) Les enjeux pouvant se présenter au cours du développement de chaînes de valeur plus sensibles à la nutrition sont : la perte des micro éléments essentiels pour l'organisme et des éléments additifs comme les fibres qui facilitent la digestion, la perte de la biodisponibilité des éléments nutritifs dans l'aliment, la fabrication des aliments très riches en calories.  
Les opportunités vont de la production aux consommateurs. Ceci crée de la plus value à chaque acteurs du système, diversification du  marché, réduction des maladies d'ordre nutritionnel et aussi amélioration des maillons de la chaîne.  
  
2) Au TOGO nous avions plusieurs cas de ces chaînes de valeur favorables à la nutrition. La société Nioto productrice d'huile de coton adopte la technique de la fortification en vitamine A. Nous avons la structure Aliment fortifié qui transforme le maïs en farine de maïs fortifié. Actuellement la feuille de morina oleifera est très prisée et actuellement elle est séchée à température basse pour éviter la perte des vitamines et minéraux.  
  
3) Les éléments nécessaires sont de plusieurs ordre : éducatif, logistique, financier et autres.  
Il faut que les acteurs de ces maillons soient tous formés dans le domaine pour pouvoir connaître les exigences du produit à transformer, les nutriments sensible et les moyens pour les conserver. Les moyens financiers des acteurs peuvent jouer sur les moyens ou méthodes de conservation et transport à appliquer.  
  
4) Les obstacles sont ceux cités au troisième point. Et la résolution de ces obstacles permettra de rendre le modèle plus fiable, formel et reproduisable.  
  
Adebayo Ajadi DEPO  
Ingénieur Agronome  
Technologue Alimentaire

**English translation**

My name is DEPO Adebayo, Agricultural Engineer.  
  
1) The issues that could arise in the process of developing nutrition-sensitive value chains are: the loss of micro-elements essential to the human body and additional elements like fibers which aid digestion, the loss of the bio-availability of the nutritive elements in food, the production of food saturated in calories.  
The opportunities arise from producters through to the consumers. This creates added value for each actor in the system, market diversification, reduction of nutritional related illnesses and also, improvement of the links in the chain.  
  
2) In TOGO we have several cases of nutrition-sensitive value chains. The Nioto Company, a producer of cotton oil, adopted the technique of fortifying with Vitamin A.  We have the system called Fortified Food which transforms maize into fortified maize flour.  At present, the leaf of the moringa oleifera [behn tree or horseradish tree] is much appreciated and is nowadays dried at low temperature to prevent the loss of vitamins and minerals.  
  
3) The necessary elements are of various kinds: educational, logistical, financial, and others.  
It is necessary that the actors of these chains are all trained in the subject to know the demands of the product to be transformed, the sensitive nutrients and the means to conserve them. The financial means of actors can have a bearing on the means or methods of conservation and transport to be applied.  
  
4) The obstacles are those mentioned in point 3 above. Solving these obstacles will facilitate the creation of a more reliable, formal and reproducible model.  
  
Adebayo Ajadi DEPO  
Agricultural Engineer  
Food Technologist

## Frank Eyhorn, HELVETAS Swiss Intercooperation, Switzerland

In my opinion the discussion paper is one of the most useful CFS publications ever - comprehensive, analytical, practical, and to the point. A big "thanks" to the working group!

[Helvetas](http://www.helvetas.org/) has worked for decades on inclusive value chains in over 30 countries, and more recently applied a specific nutrition focus. Since most value chains are driven by private sector entities that often focus on specific commodities (in order to use economies of scale), a big challenge is to identify the**business case**for diversification and for the production of nutritious foods. The example of an [organic and fairtrade rice project in India and Thailand](https://www.helvetas.org/topics/keystone_mandates/rice_project.cfm) shows that **diversification into nutritious crops** grown in rotation with the focus crop enables farmers to improve diets as well as incomes ("climbing the value ladder"), provides business opportunities to local processors and traders (e.g. selling pulses and vegetables in local markets) and even drives innovation among specialized companies (e.g. launching rice-pulse mixtures).

Nutrition sensitive approaches seem easier to implement in initiatives driven by development actors. The [Nutrition in Mountain Agroecosystems Project](http://www.ifoam.bio/en/nutrition-mountain-agro-ecosystems) under the [Swiss Global Program Food Security](https://www.eda.admin.ch/deza/en/home/themes-sdc/agriculture-food-security.html) successfully promotes diversified ecological farming and value chains by**assisting rural service providers and advocating for conducive environments**. Both projects simultaneously pursue the three pathways indicated in the paper: raising smallholder incomes, increasing their own production of nutritious foods and increasing their availability in local and regional markets.

In both cases (private sector and development initiatives), **awareness raising among producers AND consumers** is key in order to ensure that people increasingly choose nutritious and sustainably produced food. Initiatives to raise "food literacy" among consumers, such as the ones launched under the [Sustainable Food Systems Program](http://www.scpclearinghouse.org/sustainable-food-system/affiliated-projects-sfs-programme) (Food for Life, My Food Skills and Sustainable Gastronomy Sector) are important to enhance the demand-pull that in the end determines whether or not producers and businesses engage in nutritious food value chains.

Last but not the least a hypothesis that may further add value to the paper: Scaling-up of sustainable food value chains and systems that are "good for people and planet" requires four factors to work together: 1) Know-how at the production and value chain level, 2) Market demand, 3) a Conducive policy environment, and 4) Multi-stakeholder collaboration (see [discussion paper of the Swiss National FAO Committee](https://www.blw.admin.ch/dam/blw/de/dokumente/International/Institutionen/CNS%20FAO/Working%20towards%20Sustainable%20Agriculture%20and%20Food%20Systems_discussion%20paper.pdf.download.pdf/16-12-16%20Discussion%20paper%20SAFS%20publication.pdf)).

I look forward to your feedback!

## Helen Medina, Nestlé, Switzerland

Nestlé would like to thank the FAO Global Forum on Food Security and Nutrition for giving us the opportunity to participate in this discussion on how value chains can improve nutritional outcomes for society. The private sector is an important partner that can work with governments and civil society to develop initiatives throughout the value chain from the sourcing of food, to manufacturing and delivering safe and nutritious foods to close the nutrition gap.

Within this context, we hope these brief examples stimulate further discussion on how value chains can contribute to improving nutrition so that more solutions and actions can be taken to address this challenging issue.

Responsible sourcing

We source supplies of ingredients from millions of farmers globally. By understanding and managing where and how our ingredients are produced, and the issues farmers and their communities face, we can better support rural development and farmer livelihoods.

Our sourcing strategy has two main components, delivered through Farmer Connect and responsible sourcing.  Farmer Connect helps to ensure the supply of high-quality agricultural raw materials, along with providing traceability back to farm level. It enables us to engage with 719,000 farmers globally so that we can develop a supply chain that meets our social, environmental and ethical requirements. It also helps towards establishing consistent and fair pricing, improved yields and reduced environmental impacts, while empowering farmers and improving their livelihoods through activities such as training, developing alternative income streams and supporting women and young farmers.

Responsible sourcing consists of sourcing our raw materials and paper in compliance with our Responsible Sourcing Guideline (RSG) criteria, and is aimed at achieving traceability and transparency throughout our supply chains. It also sets minimum standards for economic, social and environmental issues that can affect supply, livelihoods and sustainability in our sourcing activities.

Enhancing farmer livelihoods

We understand that many farmers live on low incomes and farming is not always seen as a desirable career option. However, safe, high-quality food goes together with healthy farms and communities, which is why we are focused on addressing the root causes of these issues and creating an enabling environment to enhance farmers’ livelihoods.

We use a range of diagnostic tools such as our Response-Inducing Sustainability Evaluation (RISE) and Rural Development Framework (RDF) to assess and understand farmers’ needs. These tools help us identify and understand areas for intervention. The findings then guide our work to address issues that challenge farmers. Through our flagship Farmer Connect programme we engage directly with farmers to source our raw materials, all the while enhancing their livelihoods.  For example, we are designing programmes to support farmers and their families to improve food availability and diversity. We train farmers on nutrition, promote intercropping, and help farmers develop and maintain kitchen gardens and livestock.

In 2016, we introduced the concept of house gardening and growing vegetables for home use in Indonesia. We are also taking our Nestlé Healthy Kids programme to rural areas in Indonesia, the Philippines and Kenya. We continue working with Solidaridad to improve food security for farmers in Kenya and Ethiopia by increasing production and incomes. Solidaridad trains farmers on nutrition and coffee production, and developing intercropping to improve incomes, while we are developing training and support for kitchen gardens to improve nutrition.

Fortification

We fortify foods and beverages such as condiments, children’s milks and cereals to provide additional nourishment for vulnerable groups such as school-age children and expectant mothers.

These products are all effective carriers for micronutrient fortification because they are consumed widely and frequently, building on existing eating habits. We focus our efforts on regions that face some of the largest burden of micronutrient deficiencies such as Africa and South East Asia. Of the 207 billion servings provided in 2016, 121 billion were fortified with iron (an annual increase of 23%), 113 billion with iodine (an 8% increase), 27 billion with zinc and 42 billion with vitamin A. Products can be fortified with one or several micronutrients.

For example, the popularity and market reach of our Maggi product range give us a solid platform for helping tackle micronutrient deficiencies at scale. Almost 103 billion individual servings of Maggi soups, condiments, seasonings and noodles were fortified in 2016, of which 59 billion were fortified with iron.

Biofortification

Through our engagement in support of biofortification, we use and promote varieties of crops that are naturally rich in micronutrients. Beyond their use in Nestlé products, these crops are intended for populations, particularly in developing countries, that conventional fortification (with nutrients added during food processing) may not be able to reach.

Biofortification is a lengthy process that involves breeding and selecting enriched crop varieties, and engaging with distribution partners and farmers. Establishing biofortified crops in local markets can take a decade or two. In the past few years, we have worked with other society stakeholders to develop supply chains for biofortified crops, and we have started using these materials in some of our recipes.

We are focusing on the most promising biofortified crops - maize, wheat, sweet potato and rice. For example, we are establishing a supply chain for vitamin A-rich maize in north Nigeria, where the average yield of maize in Nigeria is only 1–2 tonnes per hectare. These new varieties, developed by HarvestPlus through the CGIAR centers, have higher yields.  By creating the commercial pull by using these fortified crops in our own supply chain, this will help to improve the nutritional status of the local communities and farmers since part of the crop is used for their own consumption. The goal is to replace common varieties of staple crops with nutrient-rich alternatives, improving access to nutrition almost by default.

Thank you for giving us the opportunity to share with your our work. The health of our company is intrinsically linked to the health and resilience of the society we operate in.  For more information please visit <http://www.nestle.com/csv/what-is-csv>

## Sebastian Romero Villamil, Colombia

**A warm and kind greeting for you,**

**Dear Reader**

1) What challenges and opportunities arise when Value Chains are formed to make them more sensitive to nutrition?

**CHALLENGES**

- Generate raw materials 100% healthy, free of man-made chemicals for the treatment of pests, diseases of consumption sources.

- Raising awareness among communities about the contraindications generated by excessive consumption of industrially produced sugars that are not natural

- Normatize (whereas large multinationals which economically benefit from the use of sugars in products intended for human consumption) do not promote the consumption of such products and promote the consumption of fresh foods

**OPPORTUNITIES**

- The promotion by academic institutions of social support by young professionals through the dissemination and implementation of models for the assurance of product quality

- Design and support in the creation of traceability systems that allow to have the highest control over each raw material used for food production as well as the reduction of the use of artificial additives and preservatives in both small and medium production plants and big

- Direct honest work between large marketers, processors and food processors and agricultural producers, which seeks the sustainable development of regions.

2) What examples of CVCN approaches can you share and what lessons can be learned from them? Examples can come from:

2.1) Governments: policies, regulatory frameworks, etc.

2.2) Development actors: development projects, public-private partnerships, etc.

2.3) Private sector: nutritional products for the base of the pyramid, market for nutrition, etc.

In Colombia a country where one of its main economic activities is agriculture, for at least 9 decades has been consolidating associations of producers where it is sought to fulfill as much as possible with the objective of producing sustainable food with the highest standards of quality.

It is important to recognize the role played by these institutions, which are dedicated not only to promoting production but also to generating added value where all actors in the value chain benefit, but mainly farmers.

A clear example of the union of all these efforts is the association and nongovernmental organization that today represents more than 555,000 coffee families in Colombia, founded in 1927 with the mission of "to ensure the welfare and improvement of the quality of life of those who Represents the coffee federation for 90 years has been the main guild of Colombia, with presence in all rural areas where coffee is produced in the country.

Its central axis is the coffee producer and his family, so that their business is sustainable, coffee communities strengthen their social fabric and Colombian coffee continues to be considered the best in the world "(Fedecafe, 2004). Of different actions seeks to increase the quality of life of Colombian coffee producers.

For this reason, the FNC is present among other fields in the investigation, through cenicafe to optimize production costs and to maximize the quality of the coffee, in the technical accompaniment to the producers through the extension service, in the regulation and commercialization of the coffee To optimize the price paid to the producer and in the execution of trade programs for the benefit of the producer, the community, and the environment.

This federation has a clear commitment and vision of social development, whose axis has been called sustainability in action. This implies giving importance and commitment to the social, economic and environmental axes to help coffee growers and their families to have a life project associated with the coffee business, research and transfer programs are aimed at generating relevant and easy technologies Implementation by Colombian coffee producers.

More than half a million producers have access to services such as the purchase guarantee, which becomes viable thanks to the commercialization of Colombian coffee by the association, the organization has also been a leader in developing Advertising and Promotion programs so that Consumers know and demand Colombian coffee. In addition, the policies implemented to generate greater added value to producers have demonstrated a leadership that few organizations in the rural world of developing countries have been able to replicate.

The coffee growers promoted by growers in the face of complaints and inconveniences derived from free trade agreements, the revaluation of the peso (Colombian national currency), illegal smuggling, rising fertilizer costs, falling international prices The products, which was solved with the support of the National Government.

In recent years, activities such as the national cup quality contest, national preparatory championships, national championships to the best crops, which seek to bring more benefits to the producers have been carried out and the efforts continue, as the adverse effects continue Being the same as the consequences of climate change, the recent termination of the longest internal conflict in the world, which means that a gap is opened that does not take advantage of what should be done through the creation of jobs and contributions to society Of the actors in the conflict would result in a higher level of poverty in the regions.

These efforts generated by the association are also aimed at the consumer to obtain a product of higher quality, from which the same consumer receives all the benefits and nutritional contributions of the product without generating any type of damage or contraindication in his body.

These benefits have already been studied and endorsed by both public and private institutions and which we can mention below.

United States Food Guide Advisory Committee

Panel of independent experts appointed by the FDA

Secretary of Health of the USA

3) Does the framework presented in the discussion paper help you identify barriers and opportunities for the development of CVCN? What would be needed to make the framework more operational?

Develop a general action plan understandable by the populations, define medium-term times, delegate and execute tasks and activities in order to fulfill the objectives set in the established times. Governments should commit to the development or implementation of this action plan.

As a public policy which should be legislated and defined as a law, as well as create both institutions that implement this plan and if they already exist promote

Public and private partnerships with institutions of education from the lowest levels of education to the professional university degree.

And paying closer attention to the latter, where academic institutions as a requirement of degree to their professionals generate a result of impact given by social contributions, (As a compulsory social service applied to lines of emphasis in accordance with university careers. )

Implement and validate compliance with the aforementioned "strategies and policies to improve the supply of nutritious foods" (CFS, 2016): where it is possible to implement strategies aimed at the development of the standard CV, such as:

Improvement in the quality of products and processes (production efficiency, productivity, and reduced impact on the environment);

The functional improvement (opportunities to add value, both in the processing, packaging, marketing distribution and final disposal of waste)

In the report on "INCLUSIVE VALUE CHAINS FOR SUSTAINABLE AGRICULTURE AND IMPROVED RESULTS OF FOOD SECURITY AND NUTRITION - REFERENCE DOCUMENT published by The World Food Security Committee, 2016; Figure 1 Strategies and policies for the development of the value chain that takes into account nutrition "it takes a last link in the value chain which being the last one is not less important and is the DISPECTION OF THE RECIITS generated by Food as it is also a link that affects society because of the impact it generates and the imbalance it causes.

It is therefore imperative that each link in the chain be monitored and controlled within the proposed implementation plan.

Attachment:

<http://www.fao.org/fsnforum/sites/default/files/discussions/contributions/para%20contribuir%20a%20la%20agenda%20mundial%20de%20nutrici%C3%B3n%20y%20a%20los%20Objetivos%20de%20Desarrollo%20Sostenible.pdf>

## Working Group on Nutrition-Sensitive Value Chains of the Rome-based Agencies

Thank you all to the contributors who participated this past week! The consultation will still be open until April 19, so we hope that others will keep writing in with their thoughts and experiences related to nutrition-sensitive value chains.

This week featured an impressive range of contributions, which was notable not only for describing the actions that can be taken by individual value chain actors (e.g. farmers, agribusinesses or governments), but also the relationships among different value chain actors and the more coordinated action we should seek to achieve, including through a more enabling environment. We were very happy to see that numerous contributors were able to share specific experiences they have had at country level working with value chains – these will be very informative for our work moving forward.

One key theme which continued this week was how value chains can benefit smallholder farmers more, i.e. how can smallholders capture more of the value (economic and nutritional) that is being created along a value chain? A couple different contributors shared useful experiences related to farmers’ organizations, associations or cooperatives, which enable smallholders to collectively negotiate purchase agreements as well as access vital inputs, including loans. An honest, transparent, mutually beneficial relationship between smallholders, purchasers (e.g. agribusinesses, processors, marketers, etc.), input providers (e.g. banks) and consumers is foundational, with several contributors noting the importance of traceability of raw materials and private sector colleagues also sharing their experience with more responsible sourcing and investing in smallholders livelihoods.

The experience from Cote d’Ivoire also described the precarious position farmers often find themselves in, but this time, among a less discussed group: urban market gardeners. While itself having developed as an innovative response to the food need generated by urbanization, urban gardening still contend with the consequences of urbanization (e.g. pollution) and lack of land tenure.

Indeed, addressing these issues can contribute to more nutrition-sensitive value chains via an income pathway, where smallholders are more empowered and earning better income, which could wind up getting spent on more nutritious food or health services. But what will it take to apply these types of models that are common in export-oriented cash crops to value chains for nutritious foods that also benefit local nutritionally vulnerable populations? Several contributors addressed this questions by stressing the importance of a business case for nutritious foods, which relies not only on creating demand among consumers (via awareness, labelling), but also working with producers, processors, etc. to increase their understanding of the benefits (including economic) of producing nutritious food.

Looking beyond value chains from a smallholder perspective, it is also important to consider what contribution value chains can make to the broader group of consumers through a market pathway. These also include many farmers who are net consumers, but also urban consumers or others who access food in markets or through other distributions channels supplied by food value chains. Colleagues from LANSA shared another framework for value chain interventions, which focuses specifically on the link between distribution and consumption post-farm gate, and the role of markets, informal sector and SMEs. We believe this framework can be complementary to the one we have presented in our background paper, by focusing on the effectiveness of interventions as well as bottlenecks and incentives that might determine positive private and public action for nutrition in this key phase of the value chain.

A key step that is required for nutrition-sensitive value chains, however, is still to define what the nutrition problem is. Various commodities can be selected and various actions taken at different stages to enhance nutritional value, but which are likely to be the most cost-effective at addressing particular drivers of malnutrition in a given context? Linking value chain actions more closely with nutrition assessment and analysis would not only be part of making them more nutrition-sensitive, but also making them more nutrition-smart. We are grateful to hear any experiences the forum participants may have had with linking nutrition assessment to value chain actions, including through commodity selection or other strategies.

Thanks again for the great participation and we look forward to more contributions, especially for those who may have some educational experiences to share with us!

## Joy Muller, Switzerland

For "strategies and policies to enhance the demand for nutritious food" (CFS/2016/43/inf.21, p.3), I think that awareness-raising starting at very young age could be useful.  Children when understanding what nutritious food means for him/herself can share the knowledge home with other family members.  Knowledge sharing with a bottom-up approach can influence the behaviour of people and can complement public authorities' top-down approach to reduce malnutrition.

## Pilar Teresa Garcia, FANUS Foro de la alimentación, nutrición y salud, Bolsa Cereales de Buenos Aires, Argentina

**Original contribution in Spanish**

Consideró de máxima importancia que el valor nutricional de los alimentos debe ser incluido en las denominadas buenas prácticas agropecuarias BPA. Las BPA hacen mucho incapie en la seguridad del agricultor, lo cual está muy bien, pero olvidan incluir la importancia de la calidad nutricional del alimento que es el producto final de los sistemas de producción de alimentos. Calidad de las semillas, calidad del suelo y su importancia en la biodisponibilidad de micro elementos que como el hierro, zinc , selenio son deficientes en muchas poblaciones deberían estar incluidas en las BPA.

**English translation**

Specifying the nutritional value of food should be considered a good agricultural practice (GPA). For me, it is of utmost importance. GPAs are strongly focused on farmer’s safety -a sound approach- but they disregard the importance of the nutritional quality of food, the final outcome of food production systems. Taking into account the seeds quality, the soil quality and their impact in the bioavailability of microelements such as iron, zinc, or selenium - the shortage of which leads to nutritional deficiencies in many areas - , should be considered a GAP.

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

**Original contribution in French**

La stratégie "Chaîne de valeur favorable à la nutrition" se trouve déjà dans l'approche EBAFOSA (Ecosystem-Based Adaptation for Food Security Assembly) initiée et lancée par le Programme des Nations Unies pour l'Environnement en juillet 2015 (voir fichier attaché). L'EBAFOSA est une plateforme inclusive qui dispose de branches nationales dans tous les pays africains. J'en suis le Président pour le Bénin. Je crois que l'EBAFOSA constitue un cadre opérationnel, officiel et d'envergure sur lequel pourrait s'appuyer le "Groupe de travail des Agences basées à Rome" pour une promotion efficace de la sécurité alimentaire et nutritionnelle de l'Afrique; l'un des plus grandes poches de la malnutrition dans le monde.

Pour ce qui concerne le modèle de stratégies et politiques en faveur du développement d'une chaîne de valeur qui tient compte des aspects nutritionnels qui est proposé, je trouve géniale l'idée de minimiser les pertes et gaspillages, tout comme la promotion d'une agriculture basée sur les écosystèmes (agroécologie). Je voudrais en plus indiquer ceci. Il y a deux approches théoriques d'intervention pour appuyer la sécurité alimentaire et nutritionnelle:

- la production accrue des spéculations de base pour lesquelles on n'a pas encore atteint l'autosuffisance alimentaire (le cas du riz et de la banane plantain en afrique de l'Ouest), et

- la promotion de la transformation agroalimentaire à base d'énergie propre (ce que prévoit EBAFOSA dans ses interventions) pour les spéculations pour lesquelles l'autosuffisance alimentaire est déjà atteinte, comme c'est le cas du manioc, de l'orange, de la mangue, de la tomate et de l'igname au Bénin.

**English translation**

The strategy « nutrition-sensitive value chain » was already present in the EBAFOSA (Ecosystem-Based Adaptation for Food Security Assembly) approach initiated and launched by the United Nations Environment Programme in July 2015 (see attached file). EBAFOSA is an inclusive platform with national branches in all the African countries. I am its President for Benin. I believe that EBAFOSA constitutes an operational, official and large-scale framework on which the "Rome-based Agencies Working Group" could be based for the effective promotion of food and nutrition security in Africa, one of the biggest pockets of malnutrition in the world.

As for the model of strategies and policies for the development of the proposed value chain that takes into account the nutritional aspects, I find that it is an excellent idea to minimize losses and wastage,, as well as to promote an agriculture based on ecosystems (agroecology). I would also like to point out the following : Two theoretical approaches for intervention have been developed to support food and nutrition security :

- the increased production of staples for which food self-sufficiency has not yet been achieved (the case of rice and plantain in West Africa), and

- the promotion of agro-food processing based on clean energy (as proposed by EBAFOSA in its interventions) for staples for which food self-sufficiency has already been achieved, as is the case with cassava, orange, mango, tomato and yam in Benin.

Attachment :

<http://www.fao.org/fsnforum/sites/default/files/discussions/contributions/A%20propos%20de%20l%27EBAFOSA.pdf>

## C. Palanivelayutham Chokkalingam, India

Farmers interest groups are the basic unit by which Farmers producer organization is to be formed in regional level for effective value chain management to ensure quality farm produce. This is the only way by small and marginal farmers can market their farm produce with good quality.  By this way grading of farm produces based on the quality is possible by small farmers.

More over location specific varieties of the crop to be cultivated and to be marketed in the region itself. So that the quality of farm produce can not be degraded. Value chain management is easier for small farmers when they clubbed together to market their various farm produce.

## Arshad Malik, PMAS – Arid Agriculture University Rawalpindi, Pakistan

Governance is very important in shaping value chain in developing economies like Pakistan. Private sector is working hard to develop an effective value chain system in Pakistan. Role of multinational companies is also valuable contribution. Market leaders are dominating value chain and there is little room for new entries.

## Kemuel Satu, Solomon Islands National University, Solomon Islands

In my country Solomon Islands in the Pacific Ocean with a population of just above half a million people, with 80% of the population on subsistence to semi-subsistence agriculture encountering a drastically changing food systems as a result of changing lifestyle due to preferences to imported foods. All too often, the negative effects of introduced foods rather than traditional ones are usually learned too late when disease caused by such food were diagnosed.

Education probably would be the best way to address this ignorance. Sometimes people are aware of the significance of nutrient-sensitive value chain but just ignore it because of the convenience of introduced foods in their preparation. Nutritious foods are not always available in the house when the occupants are hungry whereas the low nutritious foods are readily available because they are cheap and could be stored longer.

There are many examples of good practices or investments for healthy food systems such as storing nutritious foods in the house by processing methods which I think will be very expensive and time consuming unless they are commercialised. The thing I am referring to is the point on our traditional foods, that of storing them as a result a result of preservation methods. One example I can think of is the noodles from the shop which are very cheap and easy to prepare than our local nutritious foods.

## Kien Nguyen Van, Plant Resources Center (PRC) Viet Nam

Hi everyone.

In my opinion, value chains is knew as a way to prolong and widen scale and level of derivative products from original product. From that, it accumulates and creates new values.

In case of food and nutrition, it should be based on criteria and dimensions of FAO on food security and nutrition (Availability, Access, Utilization and Stable). Under this overview, value chain will support and improve every stage and every process of Availability, Access, Utilization and Stable.

For example, under science and technology development, utilization of food and nutrition is so improved in/through value chains (quality and quantity). Then, this is strengthening Availability, Access and Stable to food and nutrition to every stakeholders in society and community.

For Availability,  
For Access,  
For Stable,

We also see shape in value chain to improve nutrition

Best regards,  
KIEN

## Lal Manavado, University of Oslo affiliate, Norway (second contribution)

Can Good Reasons of Habit Give Place to Better?

My apologies to Cæsar for taking liberties with something he is supposed have said. In the current discussion, I think we ought to have taken a more careful look at what we mean by value in the present context. Unless we have a very clear and correct notion of value involved, it is difficult to see how we can develop a sound set of criteria to select locally successful projects with a view to supporting them on a larger scale.

Supporting such field operations will be worthwhile only if they are sustainable without degrading the environment, and could produce the ingredients necessary for a varied, balanced and wholesome diet. What is wholesome, balanced and varied is not something that should be imposed on the people by outsiders, but should be ascertained with reference to their own food culture. This seems to be the only reasonable path away from the continuing diminution of bio-diversity in agriculture and animal husbandry.

I postulate that even the local success of a project cannot be meaningfully ascertained just in monetary terms; rather its success should be measured in terms of the number of country’s people whom it enables to procure a sustainable, wholesome, balanced and varied diet. After all, this is what we all are trying to achieve by SDG-2. In my previous submission to this discussion, I have identified our fundamental need of nutrition as what gives food its high value while intermediate systems between a food producer and an end-user gain their service value because food they store, transport, sell, etc., is valuable. Had we had no need of food, no part of a food system could have a rational value.

Having said this, I do not deny the usefulness of money as a tool to procure food, because fewer and fewer people take up agriculture or animal husbandry as their livelihood. However, it is also undeniable that in many rural areas of developing countries, malnutrition is rife even among the food producers themselves. There are two main reasons for this:

1. Poor soil, lack of water, know-how, appropriate implements and equipment, seeds, or breeding stock, etc.
2. For some reason, food producers in an area cannot produce the minimum output needed to provide a community a wholesome, balanced and varied diet. If 1 above is not the cause of the problem, it could be a geographic or a climatic reason, which allows people to produce even an abundance of some food, but not varied enough to provide them a balanced diet. This might also result from faulty planning, lack of know-how, commercial inducements, etc. Example consequences of both of these are incidence of deficiency diseases like night blindness and Beriberi associated with a diet mostly consisting of rice.

If we agree that the second factor above is reasonable, then the surplus rice will have less value to the producing community than what it requires for its own needs. But to a neighbouring community short of rice, that surplus will have the same value as the rice the producing community requires for its own needs. Supposing that neighbouring community has excess fish, and then a cooperative mechanism may enable the two to exchange fish for rice at commensurable values so that both communities may move a step closer to achieving our objective, viz., a wholesome, and varied and a balanced diet for all.

From a global perspective, it is the obvious desirability of this objective that gives a value to agriculture, animal husbandry, and fisheries. The intermediate systems including selling therefore gain their service value from how effective and efficient they are as channels of making available to  the end-users a sustainable supply of affordable, wholesome and varied food stuffs. I think it would repay to build the proposed framework upon this value foundation.

Best wishes!

Lal Manavado.

## Victor Pinga, SPRING Project, United States of America

Thanks for the opportunity to comment. The paragraphs below correspond to each question.

1. There are inherent tensions already described in the paper in adapting a value chain approach for nutrition-sensitive agriculture. Identifying entry points for nutrition in value chains can provide win-win opportunities for private sector actors and the public than deliver benefits beyond the narrow interests of business.

2.  (2.2) SPRING has used an adapted value chain approach that follows more closely the steps taken by development actors - from value chain selection, to end market and value chain analysis, identification and assessment of market-based solutions, and implementation of market facilitation activities. We have seen that adapting the approach can help identify convergence areas for value chains and nutrition.

3. The framework presented in the discussion paper assumes that nutrition-sensitive agriculture can only be achieved through a food-based approach, or the supply and demand of nutritious foods through the income, own production and food market pathways. As already mentioned in Paragraph 10 of the paper, women’s empowerment and gender equality are critical, however they are important not only as mediators in these pathways, but on their own they have a direct effect on underlying drivers of nutrition in terms of time, energy and resources available for care of self and child. Since agricultural value chains provide employment and livelihoods, value chains influence whether mothers have control over these nutrition-sensitive resources.  In addition, commercial agricultural value chains typically introduce risks to environmental safety that can directly affect health status. A more comprehensive framework is needed that includes these critical operational elements, among others.

4. The value chain approach is scalable however the question is whether value chains are sufficient to deliver high quality diets and population-level nutrition impacts when implemented on their own. A food system approach that takes in multiple food value chains, coordinated and integrated with other sectors that are also important for nutrition, such as social protection and water and sanitation, among many others, will be important to deliver results for nutrition at scale.

Additional: Entry points for nutrition in value chains can be at multiple functions – input supply (e.g., seeds, irrigation, technology), service provision (buying down risk for new inputs), all the way to end market consumers (nutrition awareness, demand promotion). Cost-effective solutions will depend on the binding constraints identified through a nutrition-sensitive value chain analysis.

## Bhavani R. Vaidyanathan, MS Swaminathan Research Foundation, India

A major challenge in the context of markets for nutrition is how to make the private sector agri-food players see addressing the problem of malnutrition as a corporate responsibility, as important as shareholder satisfaction and market share. The processed food industry for instance has immense potential to address specific micrinutrient deficiencies like iron and vitamin A. There are many examples of pilot initiatives that have worked. For instance, in India, there is the example of Britannia, GAIN and the Naandi Foundation coming together to promote high fortified iron biscuits under supervised consumptino to address iron deficiency anaemia. The company, Britannia Industries, also introduced a low iron fortified variant in its commercial line. The direction given by senior management is very important for the private sector to retain this kind of focus., unless it is ingrained in the corporate philosophy of the business entity and comes naturally. The other possibility is mandatory fortification, like iodisation of salt and vitamin A fortification of edible oils, both of which are current in India. But then there are also a large number of players in developing countries who are in the informal unorganised sector. For poor and vulnerable low income households, it is the latter that is more accessible. There are issues of accessibility and affordability that come up. Packaging in small quantities priced affordably is one of the aspects to be taken care of in consciously addressing low income households.

The state becomes a major player in the value chain for nutrition in developing countries with a large population that is malnourished. In India for instance, the supplementary nutrition programme under the ICDS targets 0-6 years children, and pregnant and lactating women in a focussed manner. There is scope for the private sector to partner with the state in these food value chains as a businesss proposition and many such instances exist.

## Bhavani R. Vaidyanathan, MS Swaminathan Research Foundation, India (second contribution)

What public and private actions are needed to strengthen the impacts of agri-food value chains on nutrition? is one of the themes that the research programme consortium LANSA has been working on. Following up from the very engaging discussion at this forum, there is an e-discussion forthcoming next week on 25-26 April to discuss the effectiveness of markets and post-farm gate value chains in delivering nutritious food in different contexts, based on case studies in India, Pakistan and Bangladesh as part of LANSA research.  Interested participants are requested to send in request for registration to [lansa.southasia@gmail.com](mailto:lansa.southasia@gmail.com)

## Rohit Parasasr, MS Swaminathan Research Foundation, India

Continuing on the theme of how Value Chains (VCs) can enhance farmer income, I am citing a well-known Indian example of Amul (a dairy cooperative). The cooperative aggregated small livestock holder and provided access to all segment of markets (premium, mass level and varied geographical regions of India) by producing huge range of product like packaged milk, ice-creams, butter, milk powders etc. Initiatives on food safety, support for animal husbandry, efficient collection structure, professional management and persistent brand development has sustained the business for more than 5 decades.

Usually, in the want of higher value for products the lower economic section of society is often neglected as a target for nutritious food. Under the research [theme](http://www.lansasouthasia.org/content/public-and-private-actions) - what public and private actions are needed to strengthen the impacts of agri-food value chains on nutrition? at LANSA, we [reviewed](http://www.lansasouthasia.org/content/review-agri-food-value-chain-interventions-aimed-enhancing-consumption-nutritious-food-poo-0) 40 agri-food interventions that indicated strategies or potential to address undernutrition. **Amulspray** was chosen for detailed case study, as an example of a business driven agri-food value chain of a fortified naturally nutrient-dense food for children. Amulspray is an AMUL product that has enhanced accessibility to milk for poor as it sells in affordable packets and the use of components of traditional and modern VCs to reach rural and urban locations. Such VCs may play an important role in enhancing nutritional intake by vulnerable groups.

We will be discussing more cases from the South Asian region during the e-discussion on 25th and 26th of April. Interested participants can write us at [lansa.southasia@gmail.com](mailto:lansa.southasia@gmail.com) for registration.

## Edye Kuyper, UC Davis, Integrating Gender and Nutrition within Agricultural Extension Systems (INGENAES) Project, United States of America

On behalf of the Nutrition Working Group of the Global Forum for Rural Advisory Services, I’m writing to build on other contributions that have mentioned the roles that Rural Advisory Services (RAS, also known as Agricultural Extension) can make to more nutritious value chains. As they directly interface with farmers and other value chain actors, RAS often play a major role in informing farmers’ decisions. These decisions are key to realizing more nutrition-sensitive value chains. At present, however, RAS typically have limited familiarity with nutrition or the recommendations they could make to support better nutrition in their local contexts.

Our nascent working group serves to bring attention to the role that RAS can play in supporting more nutritious value chains and food systems, and to develop a research agenda for outstanding questions of how to best leverage RAS for these ends. We will soon unveil a repository of training materials and other information on how to integrate nutrition within extension and advisory services, and disseminate new information and networking opportunities via a participatory listserv.

For more information, and to join our listserv, please visit: <http://www.g-fras.org/en/community/working-groups/nutrition-working-group.html>

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

**English version**

How can value chains be shaped to improve nutrition?

Mylene Rodríguez Leyton, Nutricionista y Magister  
Docente investigador Universidad Metropolitana  
Barranquilla- Colombia-

1. **What challenges and opportunities arise when making VCs to make them more sensitive to nutrition?**

CHALLENGES

When value chains are formed to make them more sensitive to nutrition, different challenges emerge as the following:

To improve the perspective of food security and nutrition (FSN) towards a systemic approach that allows the articulation of interventions from any point in the network to achieve objectives related to the improvement of malnutrition situations, from the production and availability of food to the promotion of lifestyles that include a healthy diet for the prevention of chronic non communicable diseases. In such a way that it is possible to transcend the fragmented vision where the value chain is conceived in a disjointed way and the points of connection between agriculture and nutrition are identified, to cite an example.

This implies that sectoral interventions in nutrition must be modified by multisectoral interventions with the participation, commitment and attitude of all those involved as individuals or as institutions that transcend individualism to cooperative and collaborative work.

Value chains that are more sensitive to nutrition face the challenge of visualizing globally and adapting locally as the populations of the world face problems that, because of their complexity, are immersed in paradoxes such as the double face of malnutrition and its individual and global consequences.

Another challenge is to develop the capacities of the actors, to empower them to generate leadership in the search for alternatives to achieve the sustainability of the value chains.

OPPORTUNITIES

The same complexity of food and nutritional security generates enormous sources of opportunities for governments and different actors to call public or private organizations, such as:Due to its complexity, it is possible to link food and nutrition security with development at different local, regional or national levels. FSN public policies can be integrated with public social policies, generating synergies to improve the conditions and quality of life of the most vulnerable groups.A chain of value conceived from a net vision rather than a linear one is vertical or horizontal is more appropriate to intervene the determinants of food and nutritional security from its complex and multidimensional character.Nutrition-sensitive value chains should generate not only economic results but also take into account their responsibility for improving nutrition with the definition of strategies and policies aimed at producers to improve the supply of nutritious foods, others that are aimed at improving The demand for nutritious food directed at consumers and those defined to add nutritional value as those that specifically focus on preserving or improving food security and nutritional value along the value chain, through actions such as Biofortification, storage and transport to conserve nutrients, food enrichment during processing, nutritional labeling, and measures to minimize food waste and waste to mitigate the negative effects of food lost or wasted in terms of food security And income, as well as Effects on the environment.FSN's systemic and network approach allows generating points of convergence, a shared vision of problems, which will allow sharing responsibilities or distribute them, optimize resources and budgets, and establish synergy between sectors such as agriculture, health, education and the generation of strategies and Interconnected and interdependent policies for the improvement of nutrition.The collaborative work with the participation of the public and private sectors is an opportunity for collective learning that will lead to positive results in improving the nutritional conditions of populations and where each of these sectors will play a leading role, the private sector as a generator of behavior change and the public sector as a facilitator.

One of the major objectives of value chains is to consolidate the interest of small producers in order to achieve economies of scale in the purchase of inputs and in the sale of products, so that they can then negotiate with the big traders, suppliers , Retailers and agro-processors. Likewise, with a value chain, participants can create the capacity to innovate and diversify as the market demands change. Value chains help reduce transaction costs, increase and improve rural incomes, increase the flow of information between different links, and improve technology transfer.Nutrition-sensitive value chains should be able to generate interventions in terms of beneficiary selection, depending on the nutritional or economic vulnerability criteria and providing adequate solutions in the different links in the chain.Food marketing from the perspective of a nutrition-sensitive value chain allows food farmers to produce food not only for their own consumption but to sell them and with the income generated satisfy other basic needs such as health and education; Which is contributing to the improvement in the quality of life itself and the other actors who constitute consumers by making available healthy foods, varied according to their needs to improve their nutrition and health, at lower costs and with an availability Stable and not seasonal.The establishment of the systems of monitoring and evaluation of the processes of the value chain will allow to measure the results in the nutritional scope in the homes.

**2) What examples of CVCN approaches can you share and what lessons can be learned from them? Examples can come from:**

2.1) Governments: policies, regulatory frameworks, etc.Production chains:

For more than a decade, the Government of Colombia, led by the Ministry of Agriculture and Rural Development, and the agents of the different agro-productive chains, academia, research and technological development entities, and in general Different private sector actors have been working on a state policy aimed at continuously improving the country's competitive environment, improving productivity, promoting integration, developing productive conglomerates, promoting domestic consumption, expanding access to external markets with strategy Called productive chains; The productive chains in the agricultural sector have an integration from the local, regional and national levels (Minagriculture, value chains)In Colombia, several successful cases have been developed from the strategy of production chains, such as the case of the dairy chain which, in addition to the aforementioned objectives, seeks to improve the health status of milk production in the country, in order to strengthen The competitiveness of the dairy chain.In addition to the case of dairy can be mentioned the cases of fruits and vegetables; It should be mentioned that although the value chain in the agri-food sector refers to vertical activities within the chain, from agricultural production, through the processing stage to wholesale and retail distribution, vertical integration alone does not It is a chain of value; A value chain is not a horizontal integration, where producers through cooperatives collaborate to obtain greater benefits. From this perspective, it can be affirmed that the value chains developed in Colombia, although achieving objectives from the perspective of producers, are still performing in an incipient way as value chains that take into account nutrition (CVCN), a situation given not only by conception But because our country is only beginning to recover from several decades of forced displacement of the rural population resulting from the armed conflict.Agro-food sector Value Chains arise with different objectives such as selling a new product or introducing an existing product to a new market, ensuring food safety with high quality products, maintaining or increasing market presence in the midst of increasing competition Domestic or external or Responding to new government regulations that affect the product process (Equity and Development Magazine No. 9 / January - June 2008)Another example of support for value chains that contribute to nutrition is the Local Procurement Strategy, whose objective is to contribute to food security, supporting the dynamization of local economies, seeking through supply solutions, articulated between the Institute Colombian Family Welfare Program -ICBF-, program operators and producers, strengthening the socio-economic inclusion of families, communities and local enterprises to contribute to food security based on the availability and accessibility of food. This is led by the - ICBF - and is applied throughout the country.

2.2) Development actors: development projects, public-private partnerships, etc.The Food and Nutrition Improvement Program (Maná) is a comprehensive multisectoral strategy aimed at solving the nutritional and food insecurity problem of the children of the Department of Antioquia in Colombia. This population was identified in a study developed under the New Antioquia Plan. This plan is aimed at achieving the commitment of the population in the construction of a democracy that facilitates the understanding of the problems faced by the population and that generates, from this understanding, decision making processes, action plans And self-management processes.This plan proposes several strategic areas of action; One of them is the promotion of integral human development with equity and freedom, including integral development as one that creates opportunities for people through the creation of new skills, while providing the necessary conditions for development and employment Of such skills. It is intended that this training process offers human beings good sanitary conditions (access to adequate housing, drinking water and basic public services); Education for peace and productive processes that integrate democracy, efficiency, as well as care and respect for the environment.The main purpose of the Master Plan for Food Supply and Security for Bogotá is to regulate the food supply function of the Bogota Capital District to guarantee sufficient and stable supply of food, with quality, nutritional criteria and access in a timely manner. Reducing the price and strengthening urban and rural economic circuits.Likewise, it seeks to ensure effective provision by the population and the marketing of products from the basic food basket at fair prices and within the reach of all, linking district, regional and national production to integrated food demand by Through the development of transparent and reliable processes and the creation of a network of equipment to support the sector.

2.3) Private sector: nutritional products for the base of the pyramid, market for nutrition, etc.

The private sector - usually associated with government, civil society, or both - may be better positioned to provide efficient solutions because of its resources (financial and material), innovation and management capacity; Regarding nutrition, non-governmental organizations in Colombia often become government partners for the operation of social programs and food and nutritional security; The food industries become allies by simultaneously developing their commercial foodstuffs fortified foods or special formulations aimed at improving the nutritional value for programs that benefit vulnerable populations and require increasing their nutritional contribution.

Dupont is a company that drives inclusive innovation to help solve the world's biggest challenges, including producing more nutritious, healthful and safe Food Ingredients, offering a wide variety of sustainable ingredients that increase the quality of food products , While improving its nutritional profile and shelf life.It also offers Comprehensive Food Protection solutions to address consumer concerns about food safety and quality that clearly drive purchasing decisions today, manufacturers require effective food protection solutions and efficient.

**3) Does the framework presented in the discussion paper help you identify barriers and opportunities for the development of CVCN? What would be needed to make the framework more operational?**

If it helps to consolidate a systemic vision that allows an integrated and integrated approach to food security and nutrition, to make the framework more operational, it is necessary to implement regulatory frameworks that allow different actors, especially the public sector, to act in order to advance improvement Of nutrition without the presence of regulatory barriers that prevent investment and intervention.It is also necessary to train the different actors involved in conceptual aspects that allow the understanding of the concepts of value chain and food and nutritional security from a systemic and complex approach that evidences the interrelations that configure food and nutritional security and Allows identifying the points of convergence to generate collaborative and solidarity actions that allow to improve nutrition from value chains originating in different points.

**4) What do you consider the main barriers and facilitating factors of the expansion through the replication, adaptation and expansion of these intervention models?**

Regarding barriers, the limited vision of food and nutrition security and its main links where each of the actors mainly conceives their own role and responsibilities, which avoids conceiving and making operational the concept of value chain for nutrition.It must be taken into account when replicating the experiences, adapting them to the context and analyzing the success factors of the experiences that are being taken as context.Facilitating factors for expansion through replication, adaptation and expansion of these intervention models include the creation of shared vision and goals by all those involved in the value chain for nutrition.The international, national and local regulatory frameworks for food and nutrition security from the perspective of value chains with systemic approaches, the formulation of policies and plans incorporated into government development plans.The allocation of budgets and the definition of roles and responsibilities for the value chains of food and nutritional security.

**Spanish version**

¿Cómo pueden modelarse las cadenas de valor para mejorar la nutrición?

Mylene Rodríguez Leyton, Nutricionista y Magister  
Docente investigador Universidad Metropolitana  
Barranquilla- Colombia-

**1) ¿Qué desafíos y oportunidades surgen cuando se conforman las CV para que sean más sensibles a la nutrición?**

DESAFIOS

Cuando se conforman cadenas de valor para que sean más sensibles a la nutrición surgen diferentes desafíos como los que se enuncian a continuación:

Mejorar la perspectiva de la seguridad alimentaria y la nutrición (SAN) hacia un enfoque sistémico que permita generar articulación de las intervenciones desde cualquier punto de la red para lograr objetivos relacionados con la mejora de las situaciones de malnutrición, desde la producción y disponibilidad de alimentos hasta la promoción de estilos de vida que incluyan una dieta saludable para la prevención de las enfermedades crónicas no transmisibles. De tal manera que se logre trascender de la visión fragmentada donde se concibe de manera desarticulada la cadena de valor y se identifiquen los puntos de conexión de la agricultura con la nutrición, por citar un ejemplo.

Lo anterior implica que las intervenciones sectoriales en nutrición deben ser modificadas por intervenciones multisectoriales con la participación, el compromiso y la actitud de  todos los involucrados como personas o como instituciones que trascienda del individualismo al trabajo cooperativo y colaborativo.

Las cadenas de valor para que sean más sensibles a la nutrición enfrentan el desafío de  visualizar globalmente y adaptarse localmente ya que las poblaciones del mundo enfrentan problemáticas que por su misma complejidad están inmersas en paradojas tales como la doble cara de la malnutrición y sus consecuencias individuales y globales

Otro de los desafíos que surgen es desarrollar capacidades de los actores, empoderarlos para generar liderazgo en la búsqueda de alternativas para lograr la sostenibilidad de las cadenas de valor.

OPORTUNIDADES

La misma complejidad de la seguridad alimentaria y nutricional le genera enormes  fuentes de oportunidades para los gobiernos y los diferentes actores llámense organizaciones públicas o privadas, tales como:

Por su complejidad, es posible la articulación la seguridad  alimentaria y nutricional con el desarrollo en los distintos ámbitos local, regional o nacional. Las políticas públicas de SAN pueden ser integradas con políticas públicas sociales generando sinergias para el mejoramiento de las condiciones y calidad de vida de los grupos más vulnerables.

Una cadena de valor concebida desde una visión de red y no de carácter lineal sea vertical u horizontal es más apropiada para intervenir los determinantes de la seguridad alimentaria y nutricional desde su carácter complejo y multidimensional.

Las cadenas de valor sensibles a la nutrición deben generar no solo resultados económicos sino tener presente su responsabilidad en la mejora de la nutrición con la definición de estrategias y políticas orientadas a los productores para mejorar el suministro de alimentos nutritivos, otras que se orientan a mejorar la demanda de alimentos nutritivos  dirigidas a los consumidores y las que se definen para añadir valor nutritivo como aquellas que se centran específicamente en preservar o mejorar la seguridad alimentaria y el valor nutricional a lo largo de la cadena de valor, a través de acciones como la biofortificación, almacenamiento y transporte para conservar los nutrientes, enriquecimiento de los alimentos durante su procesamiento, etiquetado nutricional y medidas para minimizar la pérdida y los desperdicios de alimentos con el fin de mitigar los efectos negativos de los alimentos perdidos o desperdiciados en términos de seguridad alimentaria y de ingresos, así como los efectos sobre el medio ambiente.

El enfoque sistémico  y de red de la SAN permite generar puntos de convergencia, una visión compartida de los problemas, lo cual permitirá compartir responsabilidades o distribuirlas, optimizar recursos y presupuestos y establecer sinergia entre sectores como el agropecuario, salud, educación y generar estrategias y políticas interconectadas e interdependientes para la mejora de la nutrición.

El trabajo colaborativo con la participación cooperación entre los sectores públicos y privados es una oportunidad de aprendizaje colectivo que redundará en resultados positivos en la mejora de las condiciones de nutrición de las poblaciones y donde cada uno de estos sectores jugarán un papel protagónico, el sector privado como generador de cambio de comportamiento  y el sector público como facilitador.

Uno de los mayores objetivos que buscan las cadenas de valor es consolidar el interés de los pequeños productores para conseguir economías de escala en la compra de insumos y en la venta de productos, para que luego estén en condiciones de negociar con los grandes comerciantes, proveedores, minoristas y agroprocesadores. De igual forma con una cadena de valor se puede crear en los participantes la capacidad de innovar y diversificar a medida que vayan cambiando las exigencias del mercado. Las cadenas de valor contribuyen a reducir los costos de transacción, aumentar y mejorar los ingresos rurales, aumentar el flujo de información entre diferentes eslabones y mejorar la transferencia tecnológica.

Las cadenas de  valor sensibles a la nutrición deben tener la capacidad  de generar intervenciones en términos de selección de beneficiarios, según el criterio de  vulnerabilidad sea esta de tipo nutricional o económico y proveer soluciones adecuadas en los diferentes eslabones de la cadena.

La Comercialización de alimentos vista de la perspectiva de cadena de valor sensibles a la nutrición, permite a los agricultores de alimentos producir los alimentos no solo para su autoconsumo sino para venderlos y con los ingresos  generados satisfacer otras de sus necesidades básicas como salud y educación; con lo cual está contribuyendo a la mejora en la calidad de vida propia y de los demás actores que se constituyen en consumidores poniendo a su disposición alimentos saludables, variados acordes a sus necesidades para mejorar su nutrición y salud, a menores costos y con una disponibilidad estable y no de temporada.

El establecimiento de los sistemas de seguimiento y evaluación de los procesos de la cadena de valor va a permitir medir los resultados en el ámbito nutricional en los hogares.  
  
**2) ¿Qué ejemplos de enfoques de CVCN puede compartir y qué lecciones pueden aprenderse de ellos? Los ejemplos pueden proceder de:**2.1) Gobiernos: políticas, marcos normativos, etc.

Cadenas productivas: Desde hace más de una década el Gobierno de Colombia, liderado por el Ministerio de Agricultura y Desarrollo Rural, y los agentes de las diferentes cadenas agro-productivas, la academia, la entidades de investigación y desarrollo tecnológico, y en general los diferentes actores del sector privado vienen trabajando en un política de estado tendiente a mejorar continuamente el entorno competitivo del país, para mejorar la productividad, fomentar la integración, desarrollar conglomerados productivos, fomentar el consumo interno , ampliar el acceso a los mercados externos con la estrategia denominada cadenas productivas; Las cadenas productivas en el sector agropecuario tienen una integración desde los ámbitos local, regional y nacional ( Minagricultura, cadenas de valor)

En Colombia se han desarrollado varios casos exitosos desde la estrategia de cadenas productivas, como el caso de la cadena del sector lácteo que además de los objetivos anteriormente mencionados busca mejorar el estatus sanitario de la producción de leche en el país, con el fin de fortalecer la competitividad de la cadena láctea.

Además del caso de los lácteos pueden mencionarse los casos de las frutas y hortalizas; es de mencionar que aunque la cadena de valor en el sector agroalimentario, se refiere a las actividades verticales dentro de la cadena, desde la producción agropecuaria, pasando por la etapa de procesamiento hasta la distribución mayorista y minorista, una integración vertical por sí sola no es una cadena de valor; una cadena de valor tampoco es una integración horizontal, donde los productores por medio de cooperativas se colaboran para obtener mayores beneficios. Desde esta mirada puede afirmarse que las cadenas de valor desarrolladas en Colombia si bien logran objetivos desde la perspectiva de los productores aún se desempeñan de manera incipiente como cadenas de valor que tengan en cuenta la nutrición (CVCN), situación dada no solamente por la concepción sino porque nuestro país apenas empieza a recuperarse de varias décadas de desplazamiento forzado de la población rural producto del conflicto armado.

Las Cadenas de valor del sector agroalimentario surgen con distintos objetivos tales como vender un producto nuevo o introducir un producto existente a un nuevo mercado, garantizar seguridad alimentaria con productos de alta calidad, mantener o aumentar la presencia en un mercado en medio de una creciente competencia doméstica o externa o  Responder a nuevas regulaciones del gobierno que afecten el proceso del producto (Revista Equidad y Desarrollo Nº 9 / Enero - junio de 2008)

Otro ejemplo de apoyo a las cadenas de valor que contribuyen a la nutrición lo constituye la Estrategia de Compras locales cuyo objetivo es contribuir a la seguridad alimentaria, apoyando la dinamización de las economías locales, buscando a través de soluciones de abastecimiento, articuladas entre el Instituto Colombiano de Bienestar Familiar –ICBF-, los operadores de los programas y los productores, fortaleciendo la inclusión socio-económica de familias, comunidades y emprendimientos locales para contribuir a la seguridad alimentaria a partir de los ejes de disponibilidad y accesibilidad a los alimentos. Esta es liderada por el – ICBF- y es aplicada en todo el país.

2.2) Actores de desarrollo: proyectos de desarrollo, asociaciones público-privadas, etc.

El Programa de Mejoramiento Alimentario y nutricional (Maná) es una estrategia integral multisectorial dirigida a resolver el problema de la precariedad nutricional y alimentaria de los niños del Departamento de Antioquia en Colombia. Esta población fue identificada en un estudio desarrollado en el marco del Plan Antioquia Nueva. Este plan va dirigido a conseguir el compromiso de la población en la construcción de una democracia que facilite la comprensión de los problemas a los que se enfrenta la población y que genere, a partir de dicha comprensión, procesos de toma de decisiones, planes de actuación y procesos de autogestión.

Este plan propone varios ámbitos estratégicos de actuación; uno de ellos es la promoción de un desarrollo humano integral con equidad y libertad, comprendiendo el desarrollo integral como aquel que genera oportunidades para las personas a través de la creación de nuevas habilidades, al tiempo que proporciona las condiciones necesarias para el desarrollo y el empleo de dichas habilidades. Se pretende que este proceso formativo ofrezca a los seres humanos buenas condiciones sanitarias (acceso a una vivienda adecuada, al agua potable y a los servicios públicos básicos); educación para la paz y procesos productivos que integren democracia, eficacia, así como el cuidado y respeto por el medio ambiente.

El Plan Maestro de Abastecimiento y Seguridad Alimentaria para Bogotá tiene por objetivo general regular la función de abastecimiento alimentario del Distrito Capital de Bogotá para garantizar la disponibilidad suficiente y estable del suministro de alimentos, con calidad, con criterio nutricional y con acceso de manera oportuna y permanente, reduciendo el precio y fortaleciendo los circuitos económicos urbanos y rurales.

De igual forma pretende garantizar un efectivo aprovisionamiento por parte de la población y la comercialización de productos de la canasta básica de alimentos a precio justo y al alcance de todas y todos, articulando la producción distrital, regional y nacional a la demanda integrada de alimentos por medio del desarrollo de procesos transparentes y confiables y de la conformación de una red de equipamientos de apoyo al sector.

2.3) Sector privado: productos nutritivos para la base de la pirámide, mercado para la nutrición, etc.

El sector privado -generalmente asociado con el gobierno, la sociedad civil, o ambos- puede estar mejor posicionado para dar soluciones eficientes debido a sus recursos (financieros y materiales), su innovación y su capacidad de gestión; respecto a la nutrición las Organizaciones no gubernamentales en Colombia, con frecuencia se convierten en socios del gobierno para la operación de programas sociales y de seguridad alimentaria y nutricional; las industrias de alimentos de convierten en aliados al desarrollar de forma simultánea a sus productos alimenticios de tipo comercial alimentos enriquecidos o formulaciones especiales tendientes a mejorar el valor nutricional con destino a programas que benefician poblaciones vulnerables y requieren aumentar su aporte nutricional.

Dupont, es una empresa que impulsando la innovación inclusiva para ayudar a resolver los desafíos más grandes del mundo, entre ellos  producir  Ingredientes para alimentos más nutritivos, saludables y seguros, ofreciendo una amplia variedad de ingredientes sostenibles, que incrementan la calidad de los productos alimenticios, al mismo tiempo que mejora su perfil nutricional y vida en anaquel.Así mismo ofrece soluciones Integrales para la Protección de los Alimentos para dar respuesta a las preocupaciones de los consumidores sobre seguridad y calidad de los alimentos que impulsan claramente las decisiones de compra en la actualidad, los fabricantes requieren soluciones para protección de los alimentos que sean eficaces y eficientes.

**3) ¿Le ayuda el marco presentado en el documento de discusión a identificar barreras y oportunidades para el desarrollo de CVCN? ¿Qué se necesitaría para que el marco fuese más operativo?**

Si ayuda a consolidar una visión sistémica que permite un enfoque integrado e integral de la seguridad alimentaria y la nutrición, para que el marco fuese más operativo se requiere implementar marcos normativos que permitan actuar a los diferentes actores especialmente del sector público para avanzar en la mejora de la nutrición sin que se encuentren barreras normativas que impidan realizar las inversiones e intervenciones.

Así mismo, se requiere que realizar capacitar a los diferentes actores involucrados en aspectos conceptuales que permitan la comprensión de los conceptos de cadena de valor y la seguridad alimentaria y nutricional desde enfoque sistémico y complejo que evidencie las interrelaciones que configuran la seguridad alimentaria y nutricional y permita identificar los puntos de convergencia para generar acciones colaborativas y solidarias que permitan mejorar la nutrición desde cadenas de valor originadas en diferentes puntos.  
  
**4) ¿Cuáles considera son las principales barreras, y factores facilitadores, de la ampliación a través de la replicación, adaptación y expansión de estos modelos de intervenciones?**En cuanto a las barreras la visión limitada de la seguridad alimentaria y nutricional y sus principales eslabones donde cada uno de los actores concibe principalmente su propia función y responsabilidades propias lo cual evita concebir y hacer operativo el concepto de cadena de valor para la nutrición.

Se debe tener en cuenta al replicar las experiencias, adecuarlas al contexto y analizar los factores de éxito de las experiencias que se están tomando como contexto.

Los factores facilitadores para la ampliación a través de la replicación, adaptación y expansión de estos modelos de intervenciones incluyen la creación de visión y objetivos compartidos por parte de todos los involucrados en la cadena de valor para la nutrición.

Los marcos normativos internacionales, nacionales y locales para la seguridad alimentaria y nutricional desde la perspectiva de cadenas de valor con enfoques sistémicos, la formulación de políticas y planes incorporados a planes de desarrollo gubernamental.

La asignación de presupuestos y la definición de roles y responsabilidades para las cadenas de valor de la seguridad alimentaria y nutricional.

## Working Group on Nutrition-Sensitive Value Chains of the Rome-based Agencies

Dear participants,

We, members of the RBA WG, want to express our very sincere gratitude for sharing your experiences, thoughts and projects in this discussion forum. We are delighted with the rich exchanges that we’ve had over the last few weeks.

The **Nutrition-Sensitive Value Chains**(NSVC) framework is envisioned as a tool to identify challenges and opportunities for nutrition at different stages of the VC. The summary of this discussion (which is currently underway) will help us refine and improve our approach to NSVC. In the meantime we would like to bring your attention to some opportunities and challenges raised by participants during our discussion**:**

* **Opportunities:**Stimulating demand for nutritious food through better nutrition awareness, education and marketing strategies; diversifying agricultural production and increasing the availability of naturally nutrient-dense foods; fortification and biofortification; strengthening value chains for local and traditional foods to meet nutrient needs and diet diversification of local populations; addressing food safety issues as well as reducing food loss and waste as a way to increase availability of safe nutritious foods in the market; etc.
* **Challenges:** Value chains should be not only nutrition-sensitive, but also economically viable. A number of questions then arise: how can we make a better business case for nutrition-sensitive value chains? How can we address the fragmentation and lack of coordination among value chain actors and across sectors? How to ensure inclusion of the poor in nutrition-sensitive value chain approaches, both as producers (with limited assets, access to services and capacities) and as consumers (with limited purchasing power)? Another set of challenges revolves around the need to adopt a more holistic approach to NSVC development: how to ensure environmental sustainability of NSVC development? What challenges and risks need to be addressed to make NSVC gender-sensitive? How can we move from the commodity-focused nature of VCs to an approach that addresses various VCs at a time with the objective of improving diets?

The discussion also showcased a number of examples of the initiatives that have aimed to leverage the power of markets and VC for nutrition and the experiences that will also enrich our understanding of NSVC development in practice. Participants also discussed the importance of the different impact pathways (income pathway, own production pathway and market pathway), along with the 2 key mediators of impact, nutrition awareness and, more prominently, women's empowerment which emerged as a central element for NSVC development. A conducive and enabling environment is also required for VC to significantly and sustainable contribute to more nutritious food systems, hence the importance of strong government engagement and coordination among different sectors and stakeholder groups.

While we must bring this discussion to a close, we would like to invite you to send any additional contributions directly to [FSN-Moderator@fao.org](mailto:FSN-Moderator@fao.org) within the next few days. We will do our best to incorporate the outputs of this consultation to refine our approach to NSVC development and to define joint work of the RBA WG on NSVC. An updated version of the Paper will be developed and shared with FSN participants in due course.

We thank you again for your contributions to this discussion.

Kind regards,

The members of the Working Group on Nutrition-Sensitive Value Chains of the Rome-based Agencies

## Abdulazeez Badairo, Farmers’ Corner, Nigeria

To shape value chains in order to improve nutrition, more still needs to be done through post-harvest from rural areas.

Storage facilities need to be improved mostly in developing communities.

Good transportation systems need to be in place from rural areas where foods are produced to the cities where these products are finally processed or consumed.

Robust market information should be developed, managed and made available with easy access for all operators including small-scale farmers and middlemen.

Successful marketing requires learning new skills, new techniques and new ways of obtaining information. Extension officers working with ministries of agriculture or NGOs are often well-trained in horticultural production techniques but usually lack knowledge of marketing or post-harvest handling.

## Bill Butterworth, Land Research Ltd, United Kingdom

The following is an over-simplification of the problems facing developing food production technology and delivery but there is a matter to be shared in this topic and that is in closed-loop nutrition, i.e. using urban wastes to provide the fertiliser to feed the people who produce the waste.  Wastes contain a wider range, and larger amounts of trace elements than mineral fertilisers and, in effect, are Carbon neutral in production.  (Bear in mind that UN-sponsored research showed that the electrical energy to make 1 tonne of Nitrogen nutrient in a modern USA factory is 21,000 kWh!)  The human race has to take the urban waste route to nutrition if it is to survive.  See the evidence and practical record of how it has been done safely in “Survival” by Bill Butterworth, Amazon and Kindle.

## Lal Manavado, University of Oslo affiliate, Norway

Why not Nutrition Value Chains when Their Value Stems from Nutrition?

As I have argued in my two submissions, what links food production and end-user and food production itself, derive their value from the inherent value of food as the third absolutely essential thing for life after air and water.

Unless we needed food, it would be meaningless to talk about food storage, transport, processing and selling services as things having any need, hence any value.

So, as we seem to have to take into account business interests, it is reasonable that those services mentioned above receive a reward commensurable with the value they contribute to timely distribution of affordable and wholesome valuable food to end-users. I believe such a value chain would not only be fair, but it would be supported by our current scientific knowledge.

Therefore, I very much hope that the committee would seriously consider re-naming 'VC's' as Nutrition Value chains, and leave their commercial use unspecified as we all know how wide spread it is. After all, we all work to extend and enhance both the quality and quantity of global nutrition.

Best wishes!

Lal Manavado.

## Dorcas Ukpe, Benue State Government, Nigeria

There are a number of characteristics of the value chain approach that make it suitable to addressing food security objectives and that add value to other approaches:

**It draws attention to incentives.**The value chain approach works to ensure that incentives are in place to promote desired behavior, which is an efficient way to sustainably achieve desired results. The value chain approach helps to:

* Identify disincentives for the private sector to respond to food supply gaps and invest in food production and processing, such as government-instituted export bans and price controls that lower potential returns and increase risk.
* Identify disincentives for producers to increase their productivity and switch to more lucrative livelihoods, such as inadequate market infrastructure and large fluctuations in the prices of basic staple foods.
* Identify incentives and disincentives for the production and sale of nutritious food, including consumer demand and production costs vis-a-vis less nutritious options.

**It is market-driven.**The value chain approach focuses on linking households to growing markets, so that households can earn income to purchase additional food. This may diversify their diet and reduce the risk of relying solely on their own production for their food security.

**It is a systems approach.**By looking at the value chain system, this approach assists in understanding the systemic impacts of project interventions. This helps identify high-impact interventions that might otherwise be overlooked such as:

* Striking the right balance between improving productivity in areas with high agro-ecological potential while ensuring market functionality to improve availability in food deficit regions, supported by the emphasis on understanding product flows and transaction costs.
* Targeting a diverse array of value chains instead of production of a single staple food. This can include non-agricultural value chains to improve food access, when this is identified as a critical factor to food security.
* Strengthening the enabling environment to ensure the right incentives are in place for value chain actors that support food security. Incentives are shaped through social safety nets, government services, and interventions in food markets, among other areas.
* Improving supporting markets for the products and services that are important to value chain actors. Critical supporting markets for food security include agricultural extension services, appropriate technology such as small-scale irrigation, transportation, storage, access to finance, leasing of farm equipment and many more.

**It seeks sustainable solutions.**In the past, the term “food security” in the development context was often used interchangeably with “humanitarian assistance” or “food aid”. These interventions often focused on alleviating short-term needs, and less on creating systems and relationships to sustainably address the underlying constraints. The value chain approach identifies the underlying causes and works towards sustainable local solutions by leveraging market forces, which leads to longer-term change.

**It emphasizes leverage.**By facilitating the actions of market actors rather than providing services directly to beneficiaries, the value chain approach is suited to reaching greater scale. Opportunities to leverage the investments and relationships of private sector actors can greatly

The Relevance of is Food Security to Value Chain programing

Food insecurity has a significant impact upon the effectiveness of value chain programming in many contexts. In many countries receiving development assistance, the majority of the population is food insecure. This includes both rural households that have periods of food insufficiency, and urban households that spend up to 80 percent of their incomes on food and so are greatly affected by fluctuations in food prices. Thus many of the participants and would-be participants in value chain programs are food insecure. Food insecurity shapes the behavior of households and therefore the success of value chain initiatives. Food insecure households are often less likely to take risks to make investments in upgrading. Individuals that are malnourished have a diminished capacity to engage in value chain programming, due to deteriorated cognitive capacity and greater susceptibility to illnesses. Those food insecure households that do engage in value chain initiatives may divert resources away from productive investments to bolstering household food security if these initiatives do not directly address food security. Addressing food security is therefore critical in many contexts to improving the outreach and effectiveness of value chain initiatives.

Conversely, value chain programming can and often does impact food security. Although it is frequently assumed that raising the incomes of the poor will automatically improve food security, this is not always the case. Research indicates that value chain activities can actually have an inadvertent but negative impact on food security. For example, encouraging the cultivation of cash crops can reduce household food production, while the processing and storage of food can greatly reduce its nutritional value for consumers. Income opportunities that remove women from child care and food preparation responsibilities may worsen nutritional outcomes. A food security lens helps value chain practitioners to identify the potential impact of activities on food security and develop mitigation strategies for any possible negative impacts. Moreover, it can help to guide value chain programs in understanding what strategies can create positive food security outcomes.

REFERENCES

World Food System Center. World Food System Center Annual Report 2013.

Erickson, P J. (2007) Conceptualizing food systems for global environmental change research. Global Environmental Change.

Global J, Kahn LK, Bisogni (1998) C. A conceptual model of the food and nutrition system. So Sci Med

Anobetti A, Kloog I et al. (2004) Increasing CO2 threatens human nutrition.

Hammond R (2005) Complex Adaptive Systems, Focus 1.1. In: Roni N, ed. Introduction to the US Food System – Public Health, Environment and Equity. John Hopkins Center for a Livable Future. San Francisco: Jossey-Bass.

Gillespie S. (2004) Nutrition Policy and Practice: Unpacking the Politics.

In: 2013 Global Food Policy Report. IFPRI.

## FSN Forum Team, FAO, Italy

The students of the [Master in Human Development and Food Security](http://www.masterhdfs.org/) at the University of Roma Tre, Italy prepared two country case studies (Kenya and Peru) in which they analysed the existing framework concerning the introduction of nutrition sensitive value chains (NSVC).

Both papers explore the national economic and social conditions of the countries’ food systems, present examples of already existing value chains and provide suggestions on how the framework presented by the RBAs can further facilitate the creation of successful NSVC.

The study on **Peru** was carried out by:

Augusta Correa Rojas, Camilla Spallino, Davidson Nkoro, Eleonora Cannamela, Federica Borrelli, Maurizio Furst, Maria Costanza Gomez Lemos, Nataliia Gavryliuk, Noemi Renzetti, Thomas Preindl, Valentina Terribile, Yacouba Coulibaly

You can download it [here](http://www.fao.org/fsnforum/sites/default/files/discussions/contributions/HDFS_NSVC_Peru.pdf)

The study on **Kenya**was carried out by:

Mildred Chitima, Andreé-Anne Côté-St-Laurent, Hashem Darkashalli, Irena Giorgis, Edda Isla,  
Alejandra Lizarraga, Marcel Mallow, Heather Mondin, Elise Polak, Kim Voogt, Haritz Goya

You can download it [here](http://www.fao.org/fsnforum/sites/default/files/discussions/contributions/HDFS_NSVC_Kenya.pdf)

Attachments:

<http://www.fao.org/fsnforum/sites/default/files/discussions/contributions/HDFS_NSVC_Kenya.pdf>

<http://www.fao.org/fsnforum/sites/default/files/discussions/contributions/HDFS_NSVC_Peru.pdf>

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

In the Nigerian context where the majority of food produced locally is produced by peasant farmers, storage and transportation means will be of utmost importance. The 2015 Buhari-Oshibanjo campaign idea towards repositioning agriculture in Nigeria brought about a good idea of which no implementation has been made to the best of my knowledge. The locals produce, the government buys from them, stores or export or sell to the public. It is the smartest idea in the Nigerian context. Silos wouldn't be filled with rodents and the federal agricultural system will be set on track. Recently, the Udotong Brothers of the Releaf Group contacted me on working with them. The fact is that the realities of the agricultural system in Nigeria is porous, it's in the fabric. Jehiel Oliver's Hello tractor for IITA young agripreneurs is still on hold because the sponsors at all levels want a cut. The most promising is improving the storage and transportation. In that way, the ones produced will be put to effective use and the ones to be produced later will be stored.

## Jeston Lunda, Action Aid, Zambia

Nutrition sensitivity with regard food value chains is constrained by the lack of diversification due to land limitations and lack of diversity of seeds. Ever increasing populations coupled with unsustainable methods of farming make huge parcels of land to become unproductive to support plant growth and pressure mount in terms of demand for limited arable land. This constrains diversification. The second point on lack of seed diversity has increasingly worsened over the past years with the reinforcement of commercial agriculture which builds dependence on external seeds supplied by commercial entities. These seeds are hybrid in nature and therefore have to be bought every season. With the poverty levels among the rural farming households; they become dependent, lose food production sovereignity and can only bank on hybrids supplied by commercial entities. Further, due to the use of chemicals in the production, these can have adverse effects on human nutrition endangered by GMOs and residual chemical elements which compromises the quality of food.

## Maria Delia Pinzon Gerena, UNAL, Colombia

Las cadenas de valor se modelan cuando en cada pais haya una verdadera politica de Seguridad Alimentaria y Nutricional que evite los intermediarios enre el productor y el consumidor final y fije unos precios justos para la comercializacion de cada producto y no como sucede en la actualidad que se fijan los precios en las centrales de abastos de acuerdo a la cantidad de producto que llegue , de esta manera el productor minoritario generalmente sale perdiendo porque no recoge ni siquiera lo de los insumos.

Por otra parte se debe volver a la modalidad de que cada campesino produzca para su propio consumo variedad de productos que garanticen su seguridad alimentaria y la de su entorno mediante el uso de trueque de excedentes, o mediante la organizacion de cooperativas de pequeños productores que les permitan comercializar a precio justo sin intermediarios que se queden con la ganancia que le correspode como productor.

1. FAO. 2014. Developing sustainable food value chains – Guiding principles. Rome [↑](#footnote-ref-1)
2. Gelli, A., Hawkes, C., Donovan, J., Harris, J., Allen, S. L., De Brauw, A., Henson, S., Johnson, N., Garrett, J. & Ryckembusch, D. 2015. Value chains and nutrition: A framework to support the identification, design, and evaluation of interventions. *Documento de debate 01413 del IFPRI.* Washington DC: IFPRI; y De la Peña, I., Garrett, J. y Gelli, A. (Próxima publicación) Nutrition-sensitive value chain from a smallholder perspective: A framework for project design. Roma: FIDA. [↑](#footnote-ref-2)