

### **Nutrition-Sensitive Extension**



#### **LECTURER GUIDE**

Global Forum for Rural Advisory Services (GFRAS) c/o Agridea, Eschikon 28, 8315 Lindau, SWITZERLAND Phone +41 (0)52 354 97 64, Fax +41 (0)52 354 97 97 info@g-fras.org, www.g-fras.org

#### **Nutrition-sensitive extension**

#### **Pre-assessment**

After reading through the module overview and introduction, complete the following pre-assessment in order to determine how experienced or comfortable you are with the topic of supporting nutrition via advisory services. You will be asked to complete a post-assessment after you have worked through the learning content. Rate your knowledge on the topics on a scale of 1 to 5 by circling the corresponding number.

	Question	Self-assessment				
		Low			High	
1	How confident are you in your ability to explain nutrition to others?	1	2	3	4	5
2	How confident are you in your ability to identify how local gender norms affect nutrition outcomes?	1	2	3	4	5
3	How capable are you of addressing nutrition in designing and delivering rural advisory services?	1	2	3	4	5
4	How well can you use your role(s) in extension to support food systems change that will improve human health and nutrition?	1	2	3	4	5

Answer: Learner's own answer.

#### Study unit 1: What is nutrition?

#### Session 1.1 The basics of nutrition

## Activity 1.1 Individual activity: Personal reflection on food

A food diary is a detailed daily record of the food and drink someone consumes over a certain period of time. Think back to yesterday and try to remember what you ate from the time you woke up until the time you went to sleep. Sometimes it is easier to remember what you ate if you also recall where and with whom you ate your meals. Answer the questions below to create your own food diary.

What did you eat for breakfast, lunch or dinner?

Did you eat any food between these meals? If so, describe what you ate between meals.

What or who influenced your choices about the food you ate?

How does the diet you consumed yesterday compare to a recommended diet, like the Benin Food Guide?

If the foods you are yesterday did not reflect a recommended diet, like the Benin Food Guide, what made it difficult for you to eat a healthy diet?

Answer: Learner's own answer.

#### **Activity 1.2 Individual activity: Important nutrients**

Using the clues provided below solve the following crossword puzzle.

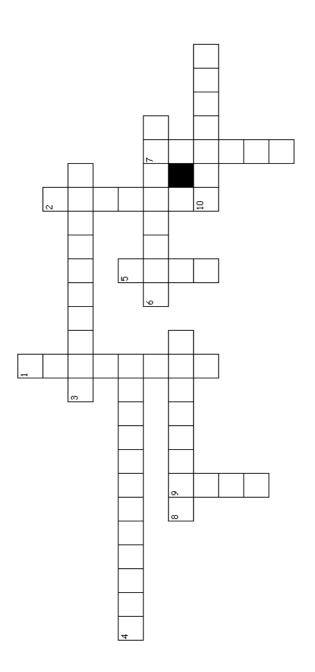
#### **Accross**

- 3. Visual representations of food-based dietary guidelines. (10 letters)
- 4. A macronutrient that provides energy to the body to move and perform daily activities. (13 letters)
- 6. A vitamin that is important for wound healing. (8 letters)
- 8. A vitamin associated with eye health. (8 letters)
- 10. Bread, grains and rice. (7 letters)

#### **Down**

- 1. A macronutrient that helps to build muscle. (8 letters)
- 2. Cowpeas, kidney beans and black beans. (7 letters)
- 5. This mineral is important for growth and brain development. (4 letters)
- 7. Also known as Vitamin B3. (6 letters)
- 9. A mineral that helps to provide oxygen to cells. (4 letters)

Answer: (3 across) Food guides, (4 across)
Carbohydrates, (6 across) Vitamin C, (8 across) Vitamin A,
(10 across) staples, (1 down) Proteins, (2 down) legumes, (5 down) Zinc, (7 down) Niacin, (9 down) Iron.

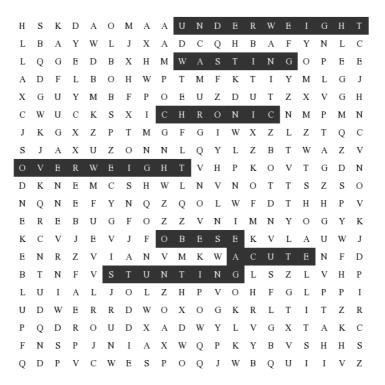


#### Session 1.2 Nutrition for All: Who needs what?

# Activity 1.3 Individual activity: Commonly used nutritional indicators

Using the clues provided to look for the words hidden in the block below. (7)

- 1. When someone weighs more than what is considered normal for their age, height and build.
- 2. \_\_\_\_\_ people have a high risk of developing Type 2 Diabetes.
- 3. \_\_\_(a)\_\_\_ is a form of \_\_\_(b)\_\_\_ malnutrition characterised by sudden, drastic weight loss caused by inadequate dietary intake.
- 4. Long term malnutrition that causes reduced growth rates, especially in children.
- 5. When someone weighs less than what is considered normal for their age, height and build.
- 6. Long term or constantly recurring.



Answer: (1)overweight, (2) obese, (3a) wasting, (3b) acute, (4) stunting, (5) underweight, (6) chronic.

# Session 1.3 Motivating people to make healthy choices

# Activity 1.4 Group activity: Helping people to make better food choices

Together with two or three of your colleagues, study the following scenario and then answer the questions below.

In a low-income community, two labourers working at a medium size farm attended an information session on nutrition hosted by their local extension service. After the session they approach several extension professionals and asked the following question: "We are lucky. We can afford to eat three meals of maize a day. Why should we change the way we eat?". The extension professionals gave the following replies:

#### Reply 1:

That is not a good diet for an active adult man!

#### Reply 2:

If you eat like that, you will not be healthy. Do you want to be healthy or risk your health?

#### Reply 3:

If you eat like this, you will have low immunity and that will lead to opportunistic infections.

#### Reply 4:

Eating like that will give you kwashiorkor!

#### Reply 5:

Eating this way you risk poor health, poor mental and physical growth, illness and death. If you want to have good physical and mental growth, enough energy and weight and a strong immune system, you need to eat better.

(FAO. 2017. Education for Effective Nutrition in Action. The ENACT Course - Student's version. Rome." http://www.fao.org/3/a-i4952e.pdf)

1. Discuss what you think of these replies and use the table below to indicate whether they are incorrect, too general or not very motivating, or have too much technical information and are too hard to understand.

Reply	Comment
Example:	
Reply 1	Too general and not very motivating.
Reply 2	Too general.
	Not very motivating.
Reply 3	Too hard to understand.
Reply 4	Too hard to understand.
Reply 5	Too much technical information.

2.As nutrition educators, you need to take care not to use complicated terms that people may not understand. Using the table below, see if you can replace these technical terms with descriptions that are easier to understand.

Technical term	Easier term or description			
Example:				
Suffer from disease	Get sick			
Strong immune system	Your body will be able to fight off illnesses.			
Opportunistic infections	Things that make you sick.			

Technical term	Easier term or description			
Adequate physical energy	Enough energy to do your work.			
Macronutrients	Important component you get from food that keeps your body healthy and strong.			
Inhibited nutrient absorption	Your body cannot use food to make enough energy.			

3. Based on these guidelines, what would your own answer be to the two labourers who eat three maize meals every day?

This may be a very general answer, as long as the learner answers the labourers with the correct information in an easy and understandable way.

#### **Summative assessment: Unit 1**

#### Theoretical assessment

Answer the following questions in your own words.

Answer: Macronutrients provide energy and are needed in relatively large amounts to support normal body functions. They include carbohydrates, proteins, and fats.

Answer: micronutrients are needed in relatively smaller amounts to maintain a healthy body. They include vitamins and minerals.

Answer: Reduced growth rates and cognitive development caused by long term, or chronic, malnutrition.

Answer: A form of acute malnutrition characterised by sudden, drastic weight loss caused by inadequate dietary intake and/or illness.

Answer: A more severe form of being overweight.

2. Match the nutrients and food groups in Column A with the descriptions in Column B. (6)

Column A	Column B
1. Fruit and vegetables	a. Provides energy and protects certain organs.
2. Vitamin K	b. Helps protect the body from diseases.

Column A	Column B
3. Vitamin C	c. A fat soluble vitamin
4. Minerals	d. A water soluble vitamin
5. Diary	e. Supports nerve functions and helps regulate heartbeat
6. Fats and oils.	f. Supports bone growth

Answer: 1b, 2c, 3d, 4e, 5f, 6a

3. Name 3 factors that determine a person's nutritional needs. (3)

Answer: Any of the following 3 for one mark each:

- Age
- Body size
- Activity level
- Physical state (health status, pregnancy and lactation, etc.).
- 4. Briefly discuss the difference between food-based dietary guidelines and food guides. (4)

Answer: Food-based dietary guidelines: Dietary guidelines provide science-based recommendations (1) about the quantity, quality and diversity of foods that ought to be consumed, depending on a person's size, activity level and factors such as pregnancy and illness (1).

Food guides: Visual representations of food-based dietary guidelines (1). They typically include fewer specific recommendations and makes it easier for non-nutritionists to understand the quality, quantity and diversity of foods that contribute to a healthy diet (1).

5. List and briefly discuss the 3 elements that determine nutritional status.

(6)

#### Answer:

- Nutrient intake (1): How many nutrients an individual takes in (1).
- Nutrient requirements (1): What specific nutrients they need (1).
- Digestion and nutrient absorption (1): The body's ability to digest, absorb and use these nutrients (1).
- 6. Different life stages have different nutritional needs. Briefly explain why infants, young children and pregnant women are more vulnerable to malnutrition? (4)

Answer: Infants and young children are rapidly growing (1) and pregnant woman have to support themselves and their growing unborn baby (1), therefore they need extremely nutritious diets (1) and adequate amounts of food (1).

7. Food choices are sometimes affected by how a person sees themselves, or how they think others see them. Using an example, explain how these perceptions can affect food choice. (4)

Answer: Some foods might be associated with poverty or hunger, while others make a person feel like they are wealthy, well-educated or urban (2). Processed foods with extra sugar and fat might show that a person is rich, as opposed to traditional foods like indigenous fruits and vegetables (2).

- 8. A person's diet and the food that they choose to eat is affected by many factors.
- a. Briefly explain external factors affecting food choice. (4)

Answer: Physical, socio-cultural, political and economic surroundings and conditions (2) shape a person's food preferences and choices (2).

#### b. Name 4 factors that affects people's food choices. (4)

Answer: Any four of the following for 1 mark each:

- Food availability
- Accessibility
- Affordability
- Desirability
- Convenience

Total: 45 marks

# Study unit 2: Ways that agriculture can impact nutrition

#### **Session 2.1 Understanding food systems**

## Activity 2.1 Individual activity: Food systems, diets and nutrition

Read the following scenario then respond to the questions to reflect upon how food systems influence diets and nutritional status.

Mr Otieno and Mrs Otieno are a young couple who farm a parcel of land in the country. They have two young children, ages 6 and 2, and Mrs Otieno is three months pregnant with her third child. Every year, the family grows maize and groundnuts on the same small, rainfed plots. The family consumes the field crops and relies on the small income they earn from raising chickens and goats to purchase fresh fruits and vegetables at the local market. The chicken's eggs, goats' milk and fresh meat are sometimes consumed by Mr Otieno and the children, but Mrs Otieno always ensures that her husband and oldest son get enough food to eat before she and her daughter are served.

For the past two years, the community where they live has suffered from severe rains. Heavy rains washed away seeds and drowned the small plants that did survive. The family sold their flock of chickens to purchase more seed, but the seed did not germinate. Mr Otieno does not think yields will last for more than six months. The granaries — made of mud and thatch — were damaged in the rains. Mr Otieno and Mrs Otieno have been storing the field crops on the floor of their small kitchen, where it has been exposed to rodents and insects.

The rains also damaged the roads, making them impassable to the traders who used to travel to the family's rural community to sell fruits and vegetables at market. What little fruits and vegetables the family can find are expensive. Mrs Otieno knows fruits and vegetables are important for her children's health and nutrition, so she will start working in her neighbor's fields to earn the extra money needed for these nutritious foods.

Use the table below to respond to the following two questions related to the Otieno family's situation.

- 1. Identify factors related to each function of the food system, which could affect the diets and nutrition of this household.
- 2. Then, describe how these factors may affect the family's diet and nutritional status.

Functions of food systems	Factors related to each function	Impact on family diet and nutritional status
Food production		
Food handling, storage and processing		
Markets and trade		
Consumer demand, food preparation and preferences		

Answer: Answers may be very general. For question 1 the learner has to use the food system functions explained in session 2.1 to complete the table. For question 2 the learner must describe at least one effect on the nutritional status of the family.

#### **Activity 2.2 Group Activity: Gender roles in agriculture**

- Pick a crop that you are most familiar with and, together with two or three of your colleagues, describe all the activities involved in the production of this crop from land clearing to marketing. Discuss whether men or women are mostly responsible for these activities.
- 2. Do you think there is difference in how men and women obtain permission (from spouses, other family members, local officials, etc.) to access land, labour and capital they use in agricultural activities?
- 3. How do these gendered activities affect nutrition within a household?

Answer: Answers may be very general. For question 1 learners have to describe at least 4-5 activities and for question 2 learners have to discuss at least one difference.

#### **Summative assessment: Unit 2**

#### Theoretical assessment

Answer the following questions in your own words.

1. Define the following terms (6)

a. Gender (2)

Answer: The way women and men, boys and girls are expected act that will vary from culture to culture and can change over time.

#### b. Gender lens (2)

Answer: A tool used to identify problems and obtain information related to gender.

#### c. Gender roles (2)

Answer: How your society defines tasks, responsibilities, and behaviours considered appropriate for men and women. These depend on context and can also change over time

- 2. Food systems directly affect the diet quality of a community and the diversity, quantity and safety of the foods people eat. (12)
  - a. Explain what is meant by the term food system. (4)

Answer: A food system is the people, institutions and processes (1) by which agricultural products are produced, processed and brought to consumers (1). Food systems include a wide range of activities (1) that make sure that the food that farmers produce reaches consumers. (1)

b. Name and briefly discuss the functions of a food system. (8)

#### Answer:

Food production (1): Food production determines how available food is and how diverse it is. / With the use of good agricultural practices, farmers can produce safe, nutritious food while protecting natural resources. (1)

Food handling, storage and processing (1): Helps to preserve the quality of food and limit food losses, supporting stable food supply and prices. / Proper handling, storage and processing techniques can affect the shelf-life, safety, nutrient content and taste of foods. (1)

Markets and trade (1): Markets and trade within countries and across borders take products from the farm to the consumer, making diverse food more accessible. (1)

Consumer demand, food preparation and preferences (1): People's ability to purchase food and their food preferences, sometimes based on cultural beliefs and gender norms, will drive demand. (1)

- 3. There are 3 major pathways that explain how agriculture can influence nutrition. (7)
  - a. Name 3 Agriculture-Nutrition pathways. (3)

Answer: All three for one mark each:

- Food production pathway
- Agricultural income pathway
- Women's empowerment pathway
  - b. Why does empowering woman in a community lead to improved nutritional status of the community. (4)

Answer: Women traditionally play a central role in household care and nutrition (1). Women will usually use additional amounts of money for nutritious foods, health care needs and other household expenditures (2). So when women are able to make decisions about income and food, the whole family will likely benefit. (1)

Total: 25 marks

# Study unit 3: Actions that extensionists can take to improve nutrition

# Session 3.1 Nutrition-sensitive rural advisory services

#### **Activity 3.1 Individual activity: List of tasks**

Consider the tasks that you are expected to carry out throughout the year. List them, then review your list and assign numbers to the tasks by their level of importance. Which tasks are absolutely essential to your role as extension agent? Which are things that you do only if you have time?

Now identify one task that is particularly relevant to the nutritionsensitive actions listed above. Describe how you could change the way you perform this activity so that it would better support nutrition.

Answer: Answers may be very general as long as the learner mentions at least five tasks, and provides at least one example of an existing task that could be made more nutrition-sensitive.

#### Activity 3.2 Individual activity: Ways to improve nutrition

Study the following scenarios and identify (1) how the interventions in each scenario support improved nutritional status and (2) ways you as an extension professional might further strengthen the interventions for greater nutrition impact.

#### Scenario 1: Postharvest handling improvement, Cambodia

As in much of the world, farmers in Cambodia lose much of their harvest due to inadequate storage and transport infrastructure. A local NGO is collaborating with a research institution outside of the country to implement a three-year project that will subsidise postharvest technologies and improve access to low-interest loans. The technologies promoted include solar dryers, inexpensive refrigeration units, and hermetic bags. Hermetic bags are an inexpensive technology to maintain grain quality for up to 12 months. The project is currently in year one of implementation. One project objective is to increase market share of horticultural crops, but to date demand is greatest for the hermetic bags used for rice storage.

(Inspired by efforts of the Horticulture Innovation Lab and the MALIS project implemented by FAO.)

#### Scenario 2: Smallholder Market Access

A five-year agricultural development project in Zambia aims to improve smallholder productivity by increasing access to inputs and markets. The activity also has an objective of increasing private-sector investment in agriculture. The project operates by training Community Agro-Dealers to sell inputs supplied by private companies to their community members. About 70% of Zambia's agricultural production is made of maize, and the prevalence of stunting among children under 5 years of age is very high (>40%). Currently in its inception, the project is identifying ways to ensure strong participation among women, not only as Community Agro-Dealers, but also as potential buyers of the marketed inputs.

(Inspired by PROFIT+, a project implemented by ACDI/VOCA and funded by USAID Zambia)

#### **Scenario 3: School Feeding Programme**

School meals programmes in Haiti used to largely rely on donated commodities, but new funding has allowed them to procure food from local producers. School cooks are now tasked with developing seasonal menus instead of cooking a daily porridge. Supply chains are not yet reliable, and food safety concerns threaten to undermine continuation of the project. This pilot project has five years' funding to demonstrate successful models for local procurement while meeting the nutritional needs of school-aged children.

(Inspired by the World Food Programme's Home Grown School Meals initiative)

# Scenario 4: Women's Empowerment for Child Health and Nutrition

A donor-funded project in Bangladesh is designed to improve women's and children's nutrition outcomes with activities focused around homestead food production. Women are encouraged to produce nutrient-rich indigenous vegetables, raise local chickens, and market products for income. However, because most women do not have input into decision-making around agricultural production and are, therefore, not engaged in the economic life of the households, the project is not realizing the intended impact. To address this challenge, the project team designs an approach to addressing gender norms and building constructive communications skills with the whole household.

(Inspired by Helen Keller International's Nurturing Connections curriculum)

Answer: The answer may be very general, as long as learners are able to articulate their proposed action.

#### **Summative assessment: Unit 3**

#### Theoretical assessment

1. Fill in the missing words.

Answer the following questions in your own words.

Nutrition-sensitive actions aim to improve the underlying causes of poor (a) \_\_\_\_. As an extensionist, you can aim to increase the production of more (b) \_\_\_\_ and nutritious foods that people do not eat enough of and that address local nutrient (c) \_\_\_\_. These foods typically include (d) \_\_\_\_ crops like orange-fleshed sweet potato and iron-rich beans; animal husbandry for (e) \_\_\_\_, eggs and meat; fruits, vegetables and legumes. By supporting farmers and other value chain actors to produce more of these foods, they will become more available.

(5)

Answer: (a) nutrition, (b) diverse, (c) deficiencies, (d) biofortified, (e) milk.

2. Explain what is meant by nutrition-sensitive agriculture. (4)

Answer: Nutrition-sensitive agriculture seeks to maximise agriculture's contribution to nutrition by focusing on the production of nutritious foods (1), and entails targeting poor households (1), promoting gender equality (1), and providing nutrition education (1) so that household resources are used to improve household members' nutrition (1), especially that of women and young children. (1)

3. Discuss 2 examples of nutrition-sensitive actions an extension professional can take to improve the underlying causes of poor nutrition. (8)

Answer: Any two of the following examples for four marks each.

 Promote safe processing, preservation and storage practices both on the farm (1) and across the value chain (1) in order to preserve nutritional value, extend the

- availability of seasonal foods (1), reduce food losses and improve food safety (1).
- Protect natural resources through good agricultural practices (1) by adopting production systems that restore biodiversity and grow soil nutrients (1). Healthy soil produces more food with higher levels of micronutrients (1). Efficient water management, such as drip irrigation, can reduce vector-borne illnesses, like malaria (1).
- Promote clean environments through good sanitation and hygiene practices (1), particularly related to handling manure, pesticides and fertilisers (1). These actions keep people free from infection (1) so that they can absorb the nutrients in their food and ensure that natural resources will be available for crops in future years (1).
- Provide engaging nutrition education (1) to encourage people to grow and eat healthy foods (1). This could include recommendations for selecting nutritious crops (1), improving recipes with locally-available foods, or limiting consumption of extra fats, sugars and salt (1).
- Expand markets for nutritious foods (1) and market access for vulnerable groups (1). This might include helping farmers to access seeds, pest management approaches, improved livestock breeds and market price information (2).
- Work across the value chain to increase the demand for and supply of healthy foods (1) and to improve the nutritional value of food (1). Encourage input dealers, agricultural technology salespeople, food processors, wholesale buyers, etc. to broaden their offerings to support diverse foods (1) and to meet the needs of men and women farmers, which can also improve their sales (1).
- Recognise and support the different needs and barriers faced by men and women farmers (1). Empower women

in agriculture by ensuring their access to income opportunities, social networks and financial services (1). Be attentive to how new activities might affect men's and women's existing responsibilities (1). Arrange meetings at times that do not conflict with other tasks and provide support for child care as needed (1).

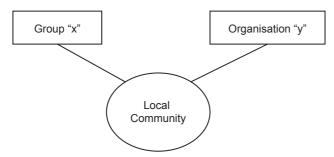
Total: 18 marks

# Study unit 4: Establishing partnerships across sectors for better nutrition

#### **Session 4.1 Partnerships and collaborations**

## Activity 4.1 Individual activity: Reflection on Partners and Collaborators

 Many people or groups usually operate in intervention communities. Think of all the individuals, groups and organisations in the local area where you work that interact directly or indirectly with the community and develop a diagram showing all the relationships at the local levels where you work (start with the template below). Label the various role players as either being positive or difficult relationships (this information is just for you).



2. For those relationships that you labelled as difficult, think about what they want or need and what you want and need in a potential collaboration. Using the principles of negotiation, state in clear terms how you would approach one organisation or person with whom you have a difficult relationship.

Answer: Answers may be very general. For question 1 learners have to mention at least two groups or organisations that work in their local community. For question 2 the learners have to use the principles of basic negotiation. If the learner does not identify a difficult relationship, they should state what they would do if they were to experience such a relationship.

#### **Activity 4.2 Group Activity: Negotiation skills**

Can you think of any groups or organisations in your area that you might want to collaborate with? Write down one or two possible people or organisations and use the basic principles of negotiation to clearly state what you would want from the proposed relationship. Together with a partner, roleplay how you will approach the organisation or person you are seeking a collaborative relationship with.

Answer: Learners need to apply the four principles of basic negotiation.

#### **Activity 4.3 Individual Activity: Action Plan**

- 1. Revisit your list of tasks you identified in activity 3.1 and answer the following questions:
  - a. Which of your current activities already contributes to nutrition?
  - b. Which activities could be shifted slightly so that they contribute more to nutrition?
  - c. Are there activities that may be impeding nutrition?
- 2. Based on your answers to the questions above, complete a two to three month 'Action Plan' to detail the actions you will take to improve nutrition in your community, provide some dates by which you will do it and name a person or people that will be able to help you to make it happen.

Answer: Answers may be very general. The learner has to answer question 1a - c for at least two to three of the activities they identified in activity 3.1.

#### **Summative assessment: Unit 4**

#### Theoretical assessment

- 1. Indicate whether the following statements are true or false. If you answer false, correct the statement. (4)
  - a. Communication barriers are a common challenge faced by extension agents who want to collaborate with other professionals.

Answer: True

b. In order to form collaborations and partnerships with other organisations in your community, you need to have a paid professional coordinator on your team. (2)

Answer: False. Although coordination staff will help with forming partnerships, anyone can approach an individual or organisation and discuss possible partnerships.

2. Discuss 2 potential challenges faced by extension professionals who collaborate or form partnerships. (4)

Answer: Any two of the following examples for two marks each:

- It can be hard to find time to meet with partners and to coordinate the schedules of many different people or groups.
- Sometimes the words used by one sector to describe problems and solutions are unfamiliar to people from another sector, even though the concepts might not be new. This can create communication problems
- Lack of administrative and support staff specialising in coordinating activities between multiple parties.
- 3. Effective negotiation skills can improve any relationship.

  Discuss the four principles of basic negotiation skills. (8)

Answer: Clearly state your needs: Firstly you have to clearly state what you need and what you feel the communities need. (1)

This step requires you to go into a meeting with clarity on what you want and need and what you are seeking in terms of an outcome.
(1)

Listen and understand: You have to listen to and understand the needs of the potential partner or collaborator. (1) This step requires you to go into a meeting with good questions, focused on the needs of the community and what a potential partnership will mean for community members. (1)

Repeat: You have to take what you have heard from the other party and returning to your needs. (1) It does not mean that you mechanically repeat what you said before but that you stay closely focused on your needs and the needs of communities and NOT get side-tracked (1)

Agreement: It is important not to be impatient to arrive at an agreement. (1) Finalise the agreement only when you are sure it will enable you and the communities to get what they really need. (1)

Total: 16 marks

#### **Post-assessment**

Now that you have gone through the learning content, complete the following post-assessment.

	Question	Self-assessment				
		Low			High	
1	How confident are you in your ability to explain nutrition to others?	1	2	3	4	5
2	How confident are you in your ability to identify how local gender norms affect nutrition outcomes?	1	2	3	4	5
3	How capable are you of addressing nutrition in designing and delivering training programmes?	1	2	3	4	5
4	How well can you use your role(s) in extension to support food systems change that will improve human health and nutrition?	1	2	3	4	5

Answer: Learner's own answer.







Global Forum for Rural Advisory Services (GFRAS) is about enhancing the performance of advisory services so that they can better serve farm families and rural producers, thus contributing to improved livelihoods in rural areas and the sustainable reduction of hunger and poverty. Rural advisory services help to empower farmers and better integrate them in systems of agricultural innovation.

