Training Course Report

Application of Dietary Diversity Tool in Food Security and Nutrition Programmes

14-17 October 2013

Atlas hotel

Dushanbe, Tajikistan

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Acronyms

DD	Dietary Diversity
DDS	Dietary Diversity Score
ESSND	FAO Nutrition Division
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FDG(s)	Focus Group Discussion(s)
HBS	Household Budget Surveys
MICS	Multiple Indicators Cluster Surveys
USD	United States Dollar
WHO	World Health Organization

Introduction

Valid and timely nutrition assessment is the foundation on which effective interventions and programmes can be built to improve the food and nutrition situation of people. Standardized indicators are crucial for making cross-country comparisons, for estimating trends, and for evaluating programmes and policies for improving food and nutrition security and nutritional status.

In the framework of the European project: *Support the strengthening of the National Food Security Information System*, the Food and Agriculture Organization of the United Nations (FAO) held a 3-day training course on the use of the *Dietary Diversity Tool for Food Security and Nutrition Programmes in Tajikistan*.

The main purpose of the workshop was to build capacity to validly and accurately assess the impact of actions for improving food and nutrition security through the use of a simple and valid food-based tool. The training course was focused on providing training and practical experience using the Dietary Diversity (DD) tool.

Dietary diversity is defined as the number of food groups consumed over a given reference period. The DD tool uses a qualitative open recall method to gather information on all the foods and drinks consumed over the previous 24 hours, which are then classified into standard food groups. It can be administered either at the household or individual level. This tool is particularly useful for assessing whether agricultural development, food security and nutrition education programmes effectively lead to more nutritious diets.

This tool, being easy to implement and analyze, is very relevant for countries, both at national as well as decentralized level. The training course combined lectures, exercises and field work (see Annex 1 for the workshop agenda). In Dushanbe, the first and last day of the workshop took place in the conference room of the Atlas hotel where lectures and group exercises covered the basic concepts of the DD tool, how to implement it and analyze the data, and its relevance for impact assessment and monitoring, and for evaluation frameworks. During the second day of training, the participants learned how to adapt DD to the local context through key informants and focus group discussions and to administer the DD questionnaire to individuals at household level.

The workshop was attended by participants from Ministries of Agriculture, Health, Economic Development and Trade, National Statistics Office, Centre for Strategic Research under the President of Republic of Tajikistan and staff of the FAO office in Tajikistan.

Training course summary

Day 1 – Classroom

The Training course was opened by Dr Sanginboy Sanginov, National Programme Manager of the EU funded project on *Support the strengthening of the National Food Security Information System* in Tajikistan who welcomed all participants and briefly addressed the importance of conducting this training course in the context of improving food and nutrition security information systems in the country. He then wished a successful workshop to all the participants and facilitators.

The floor was then given to the participants with a round of introductions, to share with the rest of the group their profession, organization they are working in and possible previous experience with nutrition assessment tools.

The first presentation was an overview of the nutrition situation in Tajikistan summarizing the main nutrition issues in the country and mentioning that stunting, iodine deficiency and maternal and child anemia represent the largest burden of malnutrition at national level. The MICS survey of 2005 showed a very low rate of exclusive breast-feeding. The proportion of infants fed according to WHO recommendations was also low, reaching 50 percent in only a few regions and age groups. According to 2009 figures, around 29 percent of children under five years of age in all regions of the country were stunted. Approximately half of the population of children and women of child bearing age were iodine deficient. Anemia affected 29 percent of children and 24 percent of mothers. Some parts of the country, namely of Ghorno-Badakhshan Autonomous Province and directly ruled districts, suffer from an even higher burden of malnutrition. It was estimated that about USD 15 million could be saved annually if the appropriate nutrition interventions were implemented. Moreover direct nutrition interventions would bring a high development return for the country.

Dr Warren T.K. Lee from the Nutrition Division, FAO, Rome, reviewed the workshop objectives and training plan. He emphasized that the Dietary Diversity Score tool can be used for food and nutrition security assessments both at household and individual level. The DDS is a measure of dietary quality and is a proxy of adequacy of macronutrient and micronutrient intakes. Below are some of the potential uses that were mentioned during his presentation:

At national level the DDS can be used:

1. To monitor the quality of the dietary intakes of the population sub-groups
2. To monitor and evaluate agro-food and nutrition intervention programmes (baseline and impact indicators)
3. In Early warning systems and vulnerability assessments of countries

At global level:

1. It provides standardized indicators and methodology to monitor and compare quality of dietary intakes within countries, across countries and over time
2. It allows cross-cultural comparisons of dietary intakes in different regions

3. It provides timely data to inform early warning systems for preparation of actions to ensure food security and to prevent starvation or famine

During this training course, participants would familiarize themselves with the DD tool methodology, would learn how to adapt the tool to the local context and how to apply it practically during the field exercise, how to analyze the collected data and critically consider strengths and weaknesses of the tool according to their country specific needs.

He mentioned that, during the second day of training, there would be guided interactions between participants and local people in the selected village to familiarize with the tool and the methodology of data collection.

In view of the fact that this was the first training course organized by FAO in the central Asian region on nutrition assessment methods, FAO was aware that the participants and their institutions would need continuous support and close follow-up in order to apply the DD tool. It was pointed out that **the nutrition assessment and nutrients requirements team in the Nutrition Division of FAO, could provide national institutions with further capacity development activities and direct technical assistance in order for them to make effective use of this tool.**

Participants were then asked to individually express their expectations which are summarized below:

1. Principles and practical application of the DD tool in the field
2. Learn how to analyze different dietary indicators
3. Be trained on the best way to convey nutrition related information to the media
4. Learn the methodology to conduct surveys, particularly using the DD methodology
5. Understand the relevance of this seminar for the health sector
6. Improve the food and nutrition security as well as the living standard of the Tajik population
7. Be able to conduct nutrition need assessments at country level

The rest of the day was dedicated to the technical presentations by Ms Marie-Claude Dop, including an overview of the development of the DD indicators, its validation and an in-depth description of the DD tool: In the overview, the rationale for developing the dietary diversity tool was presented and the evidence base for dietary diversity as a valid proxy of the adequacy of nutrient intake was described. Dietary diversity is an indicator of food security when it is used at household level (assessing access to foods) and a nutrition indicator when used at individual level (an indicator of the nutritional quality of the diet). The general principle of the measurement of DD was presented, including the different steps for its practical implementation. The importance of standardization was emphasized. Uses of the tool were briefly outlined.

In the afternoon, Marie-Claude Dop and the reporting officer (Giorgia F. Nicolò) provided a practical demonstration (role-play) of the method to conduct individual 24-hour recall interviews at household level, how to classify the collected information into the table of food groups and probe the respondent for food groups not spontaneously mentioned.

Participants were invited to practice the method in tandems and then report in plenary the difficulties they encountered. According to their feedback, the demonstration of the method was clear during the role play. However, some of the diets that they reported for the previous day were very monotonous and participants expressed uncertainties on how to fill the 24hour recall table based on such information. It was then clarified that the recall method is meant to capture the diet of the individual on usual days and that, although this is not always possible, interviewers should aim at collecting information reflecting a typical diet. Days when the diet is atypical (such as feast days and ceremonies) should be excluded. The fact that the first day of the training workshop was the eve of the major religious celebration could explain why atypical diets were reported by the participants. Therefore, it was stressed that, adequate planning of the interviews at household level should be performed before visiting the village for interviewing.

The progress of the workshop was slowed down considerably due to the need for simultaneous translation of all the presentations and discussions into the local language.

The session was closed at 4.30 p.m. (1 hour earlier than scheduled) to allow participants to reach their homes and prepare for the following day's religious celebration. This anticipated closure obliged the facilitators to skip some of the lectures which presentation was postponed to the last day after the field trip.

Day 2 – Field work in Hissoar jamoat (village of Hisor)

The second day of the workshop was dedicated to "hands on practice" in a village setting, to adapt the DD tool to the local context and to allow the participants to practice conducting discussions with key informants and focus groups while gaining experience with administering the questionnaire in a household setting.

ADAPTATION PROCESS

Activities of the second day started, in the morning, by interviewing several key informants (the complete list of the key informants interviewed is available in annex 3) and a focus group discussion (FGD) with a group of women (approximately 9 women of different age). Conducting FGDs in areas which will be part of survey data collection is a recommended procedure for adapting the DD questionnaire. The discussions dealt with the local food systems, including traditional and indigenous food availability, ingredients of commonly prepared mixed dishes including possible variations in the preparations of these dishes, and foods/ ingredients consumed in very small quantities.

In particular, the facilitators and participants worked on the following questions, among others:

- What are the most commonly eaten foods in this area?
- What are the most common mixed dishes and what are the ingredients which go into these dishes?
- What are the foods which will be seasonally available during the data collection period?
- What are the most common foods gathered from the wild? Think of green leafy vegetables, wild fruits, fish, insects, other small animals.
- Are there any vegetables or roots/tubers which have a dark yellow, or orange colored flesh inside?
- Are there any fruits available with dark orange, inside flesh?

With the retrieved information, participants were able to adapt the table of food groups to the local context (i.e. insert local foods in each of the food groups) and also collect information on the most common mixed dishes prepared and consumed in the area.

In the afternoon, participants were taught how to classify foods listed during the morning's exercise, into the food groups. This discussion was handled in plenary and participants showed interest and engagement. Summarized results from the discussion with the key informants, focus group discussion with the women and food classification can be found in annex 4 and 5 of this document.

IMPLEMENTATION PROCESS

Following the classification exercise, small teams of about five to six persons each (1 facilitator, 1 interpreter and 3-4 participants) conducted household interviews, where the DD questionnaires were administered to one woman of reproductive age living in each household. Unfortunately, due to time constraints and the need of returning back to Dushanbe before dark, not all participants had the opportunity of personally conducting the household interviews (a total of 5 interviews were conducted). But they had the opportunity to observe 1 or 2 colleagues in action, so that they could learn how to handle the household interview.

At 5 p.m. transportation back to Dushanbe was arranged.

In the evening Marie-Claude Dop, Warren T.K. Lee and the reporting officer had a meeting to debrief on the field trip and make the required adjustment to the agenda for the following day (mainly to include presentations skipped on the first day).

Day 3 – Classroom

Day three of the training course began with the presentation of the new agenda for the day which included the sessions skipped during the first day.

The process of coding the DD questionnaire was explained. The steps of the analyses of the survey data were described, e.g. including percent of subjects consuming each food group, constructing DD scores

and indicators of special nutritional interest and assessing dietary profiles. DD scores are constructed differently for infants and young children and for women.

Debriefing of the field work

Participants were asked to reflect individually and then discuss in small groups, on how the adaptation and implementation process went. To stimulate the discussion and recapitulate impressions and observations from the field work, a brief overview of the adaptation and implementation process of the tool was provided by Marie-Claude Dop.

Although the DD tool is universal, it needs to be adapted to the local context. Terms to be used in local language for setting questions need to be carefully chosen and used in a consistent way. A list of local foods needs to be developed, with names of foods in local language. Classification of all the foods in the appropriate food group needs to be done before a survey can be conducted. The list of local foods is integrated in the questionnaire that will be used in the field. Special cases, such as foods consumed in very small quantities, need to be discussed and decisions made for their classification. An inventory of common mixed dishes, including all usual and optional ingredients, is developed and field interviewers will use it for probing respondents when mixed dishes are consumed.

In addition, some of the comments and questions arising from the fieldwork were posed to the participants:

- Did the participants feel that the exercise we did yesterday was an appropriate procedure for adaptation and pretest of the tool?
- Were the different steps of the adaptation and implementation process clear?
- What would you have done differently and why?

The following points were mentioned in group discussion:

- ✓ For the adaptation process, participants felt that preliminary adaptation work should be carried out before going to the field as this is a process that requires more time, especially when interviewers are not familiar with the local culture.
- ✓ When adapting the questionnaire into the local culture, a nutritionist should be involved the reason being that participants were not always sure on how to classify certain foods (e.g. to properly include the vitamin A rich foods into the right groups as well as make decisions on how to consider certain foods rich in nutrients but often used in variable quantities according to the local habits e.g. chili).
- ✓ Only some participants had the opportunity to actively take part in the FGD with the local women, due to time constraints.
- ✓ In the implementation process, participants felt that the household interviews went well as the methodology had been clearly explained. However and given the celebration of the *Idi Qurbon*, interviewed people had been eating a great variety of foods and meals outside of their homes. This means that the reported diet is not representative of the typical diet of the region. In addition, the region where the interviews were conducted is considered a well-off area of the

country, which again, does not reflect the average food and nutrition security situation of the country.

- ✓ Participants were uncertain on how to classify and handle information regarding fortified foods: whether these should be recorded separately or not considered at all, and how to conduct an interview when the person consumed tinned foods.

Clarification was given that the field day was to demonstrate the adaptation process and provide an opportunity to practice using the DD tool. The adaptation process may require several days of key informant interviews and focus group discussions in communities with diverse food cultures. Normally, time is needed after the FGD to synthesize the information and incorporate these changes into the questionnaire forms.

Clarification was given that DDS is normally based on recall of one day and that it provides a picture of the population not of the individual. The number of days of data collection should be planned to cover proportional numbers of week days and weekend days to gain a representative picture of the dietary diversity at population level: the dietary diversity tool is not meant for individual nutrition or diet assessment

<u>Examples of the use of the tool for FAO field programmes</u>

Results and interpretation of DD survey data collected by FAO where presented (from Mozambique, Benin and Mali). The exercise of analyzing survey data had to be canceled because of lack of time.

Uses of the DD tool in the framework of FAO programmes were reviewed and strengths and limitations of the tool were discussed.

<u>Discussion on how the participants would use the DD tool</u>

Where and how do you think this tool could be used in your own country?

- ➢ Participants from **Agency of Statistics** mentioned that they regularly carry out Household Budget Surveys (HBS) at National Level. However, these surveys do not cover any aspect of dietary consumption either at individual or at household level and the DDS could be easily introduced to collect the nutrition related information. The constraint is the budget and capacity considerations for adding this indicator.
- ➢ Participants from the **Ministry of Health** reported that they are conducting quantitative food consumption surveys but data are still to be processed and do not cover the whole country. This is due to the fact that in some regions, mainly located in remote mountainous areas, can only be reached during summer season.
- ➢ The **FAO Tajikistan food security officer** acknowledged that this method is easy to use and can represent a useful tool to be used by government institutions. However, qualitative information is not enough in some regions of the country where the main problem that needs to be addressed is still the insufficient amount of energy of the diet (calorie consumption).

- Participants from the **Ministry of Economic Development and Trade** and the **Centre for Strategic Research** both stressed the importance to conduct food consumption surveys not only in the more well-off districts but also in the most vulnerable areas which are often difficult to reach and where the usual diet is frequently based exclusively on bread. Governmental institutions should receive support, both in terms of finance and capacities to conduct nationwide surveys, and to analyze and report data from these areas.

After this discussion, evaluation questionnaires were distributed to participants and cumulative results are reported in annex 7.

Concluding remarks and recommendations

The participants provided a satisfactory evaluation of the training workshop. They felt that the workshop was useful and of good quality. One limitation that they noted was that the examples used for illustrating the DD tool, mostly came from surveys conducted in Africa, which were not very relevant to their context. Nevertheless they concluded that dietary diversity could be employed for use in food security and nutrition monitoring and evaluation in Tajikistan.

Dr. Warren T.K. Lee concluded that follow-up communication will be ensured, through the FAO country office in Tajikistan, to provide necessary technical support to the national institutions for including the DDS tool in their national surveys.

Closing of the training course

Closing remarks and acknowledgements were then expressed by Dr. Warren T.K. Lee, Mr. Tomasz Lonc, FAO representative in Tajikistan, Mr. Norov, Deputy Director of the State Agency of Statistics under the President of Tajikistan and Sanginboy Sanginov, FAO National Programme Manager.

Annex 1. Agenda of the *Training course on the use of the Dietary Diversity Tool for Food Security and Nutrition Programmes in Tajikistan*

Dushanbe, Tajikistan, 14-17 October 2013

Monday, 14 October 2013			
	Topic	**Speaker**	**Materials**
09:00-09:10	Welcome Remarks	Warren T.K. Lee, FAO Senior Nutrition Officer and Sanginboy Sanginov, National Programme Manager	
09:10-09:30	Introduction of participants and administrative matters	All participants + Sanginboy Sanginov	
09:30-09:50	Food security Situation in Tajikistan	Sanginboy Sanginov	Projector
09:50-10:00	Workshop objectives	Warren T.K. Lee	Projector
10:00-10:20	What do the participants expect from the workshop?	All participants	Flip charts + markers+ cardboards
10:20-10:50	Coffee break		
10:50-11:50	Overview in the development of the DD indicators and validation	Marie-Claude Dop	Projector
11:50-12:30	Description of the Dietary Diversity tool	Marie-Claude Dop	Projector
12:30-13:30	Lunch		
13:30-14:00	Demonstration of the method (role play)+ questions	Marie-Claude Dop and Giorgia Nicolò, FAO	Flip charts+ printed questionnaires
14:00-14:45	Group exercise (participants practice the method in tandems)	All participants	Flip charts+ markers
14:45-15:15	Tea break		
15:15-16:00	Group exercise: Discussion of difficulties	All participants	Flip charts+ markers
16:00-16:30	Preparation of the field work (assign participants and interpreters to teams and logistic details)	Sanginboy Sanginov	
Wednesday 16 October 2013			
09:00-09:45	Transportation to the village	All participants	
09:45-10:20	Introduction to the village	Ms. Bozorova, Head of jamoat Hissar	
10:20-11:50	Adaptation exercise with key informants	All participants	Printed questionnaires (blank)+guidelines
11.50-13.20	Group exercise: classification of collected info into food groups	Marie-Claude Dop	Printed questionnaires (blank)+guidelines+ flipcharts+ markers
13:20-14:00	Lunch		

14:00-15:30	Focus group discussions (groups of women and men)	All participants	Printed questionnaires + guidelines
15:30-17:30	Households interviews	All participants	Printed questionnaires + guidelines
17:30	Transportation back to Dushanbe		
Thursday 17 October 2013			
09:00-09:15	Presentation of the new agenda	Marie-Claude Dop	Projector
09:15-09:45	Coding, data analysis and presentation of the data	Marie-Claude Dop	Projector
10:00-10:15	Debriefing of the field work : Overview of the adaptation and implementation process	Marie-Claude Dop	Projector
10:15-10:30	Debriefing of the field work : Discussion to summarize the experience with the adaptation and implementation process	Working groups	Flip charts+ markers
10:30-11:00	Debriefing of the field work: Participants of each group present their reflections on the adaptation and implementation process	All participants in plenary	Flip charts+ markers
11:00-11:30	Coffee break		
11:30-12:00	Debriefing of the field work: Discussion of difficulties and further clarifications	All participants in plenary	Flip charts+ markers
12:00-12:30	Some clarification on the need for adaptation of the DDS to the local context +Analysis of the data from the field questionnaire	Marie-Claude Dop + participants	Flip charts+ markers
12:30-13:30	Lunch		
13:30-14:30	Examples of uses of the tool for FAO field programmes, strengths and weaknesses of the tool. Some results from Mali, Mozambique and Burkina Faso	Marie-Claude Dop	Projector
14:30-15:00	Tea Break		
15:00-15:30	Final debriefing: discussion of how the participants will use the tool	Marie-Claude Dop+ all participants	Flip charts+ markers+ card boards
15:30-16:00	Evaluation of workshop	All participants	Evaluation questionnaires
16:00-16:45	Closing remarks	Warren T.K. Lee/ Tomasz Lonc, FAO representative in Tajikistan/ K.D. Norov, Deputy Director of the state agency of statistics under the President of Republic of Tajikistan/Sanginboy Sanginov, National Programme Manager	Evaluation questionnaires

Annex 2. Participants to the Training course on the use of the *Dietary Diversity Tool for Food Security and Nutrition Programmes in Tajikistan*

	Participants	Position	Organization
1	Mr. M. ODINA	Chief Specialist of Agrarian Enterprise and Ecology Unit	Ministry of Economic Development and Trade
2	Mr. A. MUROTALIEV	Chief Specialist of Agrarian Enterprise and Ecology Unit	Ministry of Economic Development and Trade
3	Ms. M. KHAMIDOV	Chief Specialist of Trade Policy and Services Department	Ministry of Economic Development and Trade
4	Mr. F. SALIMOV	Chief Specialist of Sanitary-Epidemiological Safety, Emergency Situations and Emergency Medical Care Department	Ministry of Health
5	Mr. Kh. KHAIROV	Director of Republican Nutrition Centre	Ministry of Health
6	Mr. A. KANDAKOV	Deputy Food Hygiene Unit	State Sanitary and Epidemiological Surveillance, Ministry of Health
7	Ms. M. YAKUBOVA	Vice President	Academy of Sciences
8	Mr. S. MURODOV	Specialist of the Crop Department	Ministry of Agriculture
9	Mr. A. ABDOULOEV	Chief Specialist of Livestock, Poultry, Fisheries and Beekeeping Department	Ministry of Agriculture
10	Mr. L. RAKHIMOV	Senior Specialist of Food Security and WTO Sector at the Agrarian Reform and Food Security Monitoring	Ministry of Agriculture
11	Mr. A. MAKHMADOV	Senior Specialist of Sectoral Development Department	Centre for Strategic Research under the President of Republic of Tajikistan
12	Ms. Kh. BEGOVA	Chief Specialist of Demographic Statistics and Employment of Population Department	Agency of Statistics under the President of Republic of Tajikistan
13	Ms. B. SHARIPOVA	Head of Department for Price and Tariffs Recording and Households Budget Research	Agency of Statistics under the President of Republic of Tajikistan
14	Ms. Z. GULOMJONOVA	Deputy Head of Department for Price and Tariffs Recording and Households Budget Research	Agency of Statistics under the President of Republic of Tajikistan
15	Mr. K. SAFAROV	Head of Protection and Competition Development Department	Antimonopoly Service under the Government of Republic of Tajikistan
16	Mr. F. AFSAHZOD	Database Management Specialist	FAO
17	Mr. R. SHUKUROV	Food Security Analyst	FAO
18	Ms. M. BUDANAEVA	National Project Assistant	FAO
19	Mr. S. SANGINOV	National Project Manager	FAO

Annex 3. List of key informants interviewed during the 2nd day of the training course

List of key informants	
1	Mr. Alimahmud Saidov, Head Physician of the Health Centre, Hisor village
2	Mr. Khurshed Kosimov, Head of Statistics Agency in the Hisor district
3	Mr. Sirojiddin Karimov, Deputy Chairman of the Hisor Jamoat (local council)
4	Mr. Ilhom hafizov, Senior Statistics Specialist
5	Mr. Sharipov, community teacher
6	Mr. Olimov, head of farming ownership

Annex 4. Examples of locally available foods classified into the DDS food groups

Group	Food groups	Locally available foods
1	**Cereals**	Wheat, barley, buckwheat, oats, maize, rice, sorghum
2	**White roots and tubers**	White sweet beetroot, red beetroot, white and red potato
3	**Vitamin A rich vegetables and tubers**	Pumpkin, carrot, red sweet pepper, chili pepper, squash
4	**Dark green leafy vegetables**	Dill, coriander, mint
5	**Other vegetables**	Cabbage, cauliflower, garlic, cucumber, radish, leak, tomato, onion, eggplant
6	**Vitamin A rich fruits**	Apricot and dried apricot, peach and dried peach
7	**Other fruits**	Persimmon, apple, peaches, banana, lemon, watermelon, mandarin, grapes, apples, pears, melon
8	**Organ meat**	Lever, kidney, heart, lung
9	**Flesh meat**	Beef, mutton, goat, rabbit, chicken, goose, turkey, quail, cheeks, sausages**,** horse meat, pork
10	**Eggs**	Quail eggs, chicken eggs, goose eggs, turkey eggs
11	**Fish and sea foods**	Fresh and frozen fish, smoked fish
12	**Legumes, nuts and seeds**	Mung bean, sesame seed, pistachios, almonds, pumpkin seeds, flaxseed, sunflower seeds, walnuts, peanuts, peas, red beans, white beans, lentils
13	**Milk and milk products**	Sour milk, cottage cheese, yoghourt, qurut (dried yoghourt), curd, ice-cream, cream
14	**Oils and fats**	Vegetable oil (sunflower, flax, sesame, cotton), butter
15	**Sweets**	Sugar, honey, candies, chocolate, cakes, biscuits, jam
16	**Spices, condiments, beverages**	Lemongrass, black pepper, salt, coffee, black and green tea, alcohol, fruit drinks (*compote*), sweet soda

Annex 5. Most common mixed dishes classified by meals

1	**Breakfast**
	Rice porridge (milk, rice porridge and sugar) Atala (wheat porridge made of fried white flour to obtain a mixture which is then boiled and seasoned with sugar) Egg (s)and sausages Tea and milk Shirrakadou (pumpkin boiled into milk) Boiled eggs Pancakes Fried potatoes
2.	**Lunch**
	Chagaldak (fried dough and herbs) Mantu (steamed dough, meat (or pumpking) and onion) Sambusa (dough, meat, onion, cooked in the traditional oven-tandoori) Tuppa (boiled dough cut in small pieces, vegetables served with boiled vegetables (beans, peas, coriander)and herbs Qurutob (wheat, butter, cucumber, tomato) Soup Krutone (small pieces of bread soaked in hot water, yoghurt and cucumber can be added, tomato, salad, fried onion and oil. Local variations can include butter or flux oil) Rice soup Noodle soup Salad Tea Fruits
3.	**Dinner**
	Similar to lunch
4.	**Snacks**
	Chocolate Dried fruits Jam Pickles

Annex 6. Example of 24 hours recall table filled in during the field trip on the 2nd day of the training (note that the recall refers to a festivity and not to a typical day)

Breakfast	**Snack**	**Lunch**	**Snack**	**Dinner**	**Snack**
Fried eggs with flux oil, tea with sugar, wheat bread, nuts	Coffee+ sugar, *chagaldak (*fried wheat dough with potato and onion)	Rice porridge (rice, carrot, pumpkin, potato, onion, tomato, peas, beef meat, oil, coriander, dill all cooked on the wood), tomato juice, plain tea (no sugar), bread, grapes, water	Almonds, nuts, sweet candies, cold tea with sugar, water	Grilled chicken with chili pepper and salt, *chagaldak* (fried wheat dough, chilli pepper, salt, coriander), tinned cucumber, watermelon, pistachios, apple, grapes, cherry juice, tea, bread (made of milk), cake (layered cake of puff pastry, cream made of eggs, milk, sugar)	Water

Annex 7. Pre-training course capacity evaluation surveys per participant

Full Name	Name and type of organization	Position and main responsibilities	Main areas of work	Main activities related to your role at work	Percentage of your time dedicated to nutrition	Provide some examples of activities with specific nutrition outcomes	Are you familiar with the Dietary Diversity Score?	In the context of what activity have you used the DDS?	Food and nutrition security assessment indicator(s) you are familiar with, you have used or you are currently using in your work?	Does your institution provide any training/ staff resources to effectively monitor and assess projects' impact on nutrition?	Relevance of the topics and objectives of this training course in your work?	What capacity (ies) are you expecting to acquire?	Is/are there any particular topic(s) that you expected to be addressed by this training course and that are not?	Would support in any of the following be helpful to you?	Any other general comment
Mukhamadi Odina	Ministry of Economic Development and Trade	Chief specialist for the development of cattle breeding and dekhkan farms	Economics and Food Safety		The majority of my time		Not at all familiar			Yes		Baisc general knowledge on the use of DDS and how to apply it		Adapting indicators to fit my particular activities and aim AND Creating, analysisng and interpresting indicators from collected data	
Akmal Murotaliev	Ministry of Economic Development and Trade	Senior Specialist for the use of agri-techniques and land sources	Food Safety, Education, Food Security, Agriculture	Nutrition surveys/assessment, Research programmes /projects relate to nutrition, policy advice	All the work I do is technically related to nutrition		I know the tool but I have never used it			Yes	Relevant	Basic general knowledge on the use of the DDS		Designing programmes/projects/studies for nutrition impact	To imporve my knowledge in the field of nutrition by using the DDS

Murod Khamidov	Ministry of Economic Development and Trade	Chief specialist responsible for the analysis of the customer market, analysis of the population needs and the design of law and regulation instruments to regulate the customer's market	Economics, Nutrition, Food safety	Nutrition surveys/assessments AND policy advice	Up to 50% of my time		Not at all familiar		No	Yes	Relevant	Basic general knowledge on the use of the DDS AND how to apply the DDS	No	Designing programmes/projects/studies for nutrition impact	development and improvement of dietary diversity in particular in separate foods. To introduce the material received in a food service
Muhiba Yakubova	Academy of Sciences	Vice president, head of department of biological and medical sciences	Human resources management AND management of programmes/projects with no specific nutrition outcomes								Relevant	Basic general knowledge on the use of the DDS AND how to apply the DDS	No		Choosing indicators for measuring outcomes and impact that make sense based on my particular activities and aim AND locating published resources that describe how to collect and analyze relevant indicators

Begova Hilola	Agency of Statistics under the President of the Republic of Tajikistan	Chief specialist demography	Statistics	Research programmes /projects not related to nutrition	Up to 20% of my time		Not at all familiar		No	No	Relevant	Basic general knowledge on the use of the DDS AND how to apply the DDS	No	Choosing indicators for measuring outcomes and impact that make sense based on my particular activities, Adapting indicators to fit my particular activities and aim, creating, analyzing and interpreting indicators from my collected data, locating published resources that describe how to collect and analyze relevant indicators	To acquire knowledge on nutrition assessments
Bunafsha Sharipova	Agency of Statistics under the President of the Republic of Tajikistan	Head of department	Statistics	Management of programmes /projects with specific and non specific nutrition outcomes	All the work I do is technically related to nutrition	Food prices AND household budget	I am familiar with the tool and I have used it	Comparison between actual consumption and recommended intakes	No	No	Very relevant		Listen to experience of other countries	Designing programmes/projects/studies for nutrition impact AND locating published resources that describe how to collect and analyze relevant indicators	I will use it in my work

Zarina Gulamdjanova	Agency of Statistics under the President of the Republic of Tajikistan	Deputy head of department. Collect the reports and organize the release of all statistic reports in a set-up period	Statistics	Management of programmes /projects with specific and non specific nutrition outcomes	The majority of my time	Food prices AND household budget	I am familiar with the tool and I have used it	Comparison between actual consumption and recommended intakes	No	No	Very relevant		Listen to experience of other countries	Designing programmes/projects/studies for nutrition impact AND locating published resources that describe how to collect and analyze relevant indicators	I will use it in my work
Abdulloev Vohid	Ministry of Agriculture	Chief specialist	Agriculture	Livestock, fishery and beekeeping	The majority of my time		Not at all familiar		No	No	Relevant	Basic general knowledge on the use of the Dietary Diversity Score AND how to apply the DDS	No		
Rahimov Loik	Ministry of Agriculture	Chief specialist for Food Security and WTO issues	Economics , food Safety, agriculture , statistics	Nutrition surveys/assessments	Up to 50% of my time		Not at all familiar		No	No	Very relevant	Basic general knowledge on the use of the Dietary Diversity Score AND how to apply the DDS		Designing programmes/ projects/studies for nutrition impact	
Salohiddin Murodov	Ministry of Agriculture	Chief specialist	Crop farming	Agriculture management and agrarian policy	Up to 50% of my time		Not at all familiar				Relevant	Basic general knowledge on the use of the Dietary Diversity Score		Adapting indicators to fit my particular activities and aim	Acquire knowledge on DDS

Annex 8. End-of-training evaluation results (summary of answers from participants)

The End-of- training evaluation was conducted by using questionnaires (see example below) that were distributed to the participants upon completion of the training course.

First part of the questionnaire refers to the overall quality of the training.

The clarity of the objectives as well as the relevance of the presentations were rated as good and above by 91 percent of the respondents. There were 80 percent and 73 percent of the respondents rating good or above to the quality of the material and the quality of the trainers respectively.

Space allocated to discussion and exchange was not enough for half of the respondents. However, positive comments were given to the usefulness of the information and the material, the professional performance of trainers and good practice shown. Several suggestions were given to the content of the training. These are:

1. More time should be dedicated to the analysis of the data using specific statistical analysis packages;
2. More detailed information on the methodology, sampling method and methods for selection of the target groups could be provided;
3. The training material is mainly based on the African countries and is not always compatible with the local reality, e.g. Tajikistan;
4. Some of the presentations, which had to be translated into Tajik and/or Russian, were not easily understandable;
5. More time should be allocated to the activities of the second day, especially households' interviews.

Second part of the questionnaire enquiries on how confident participants feel in conducting the different steps of the adaptation of the DDS questionnaire.

At least 91 percent of the respondents feel confident in conducting the different steps for the adaptation and use of the DDS (they rated 4 or above) including adaptation of the DDS to the local context with key informants, classification of collected info into food groups, conduct focus group discussions and 24 hour-recall in household interviews, data analysis and presentation. The respondents considered the analysis method simple and provided the following suggestions:

1. To find out more about food culture prior to visiting the country (e.g. the key informants were asked about hunting on rats, turtles etc.) and;
2. To conduct focus group discussions in a more effective manner.

Annex 9. End-of-training evaluation questionnaire

Please rate the overall quality of the training				
	Weak	**Fair**	**Good**	**Very good**
Clarity of the objectives of the training				
Any comment				
Relevance of the presentations				
Any comment				
Sufficient space allocated for discussion and exchange				
Any comment				
Quality of the material				
Any comment				
Quality of the trainers				
Any comment				

To what extent do you feel confident in doing each of the following? (rate 1-5)					
	1	2	3	4	5
Adaptation of the DDS to the local context (with key informants)					
Any comment					
Classification of collected info into food groups					
Any comment					
Conducting focus group discussions					
Any comment					
Conducting 24 hour-recall in household interviews					
Any comment					
Data analysis					
Any comment					
Data presentation					
Any comment					