

APAN Module Design Workshop

ON TNA CLIMATE CHANGE ADAPTATION

CAMBODIA TEEM

Content of the presentation

- Introduction
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- Methodology
- Institutional arrangements and policy set up in the country
- Finding from TNA
- Conclusion

Introduction

- Climate change has become a real challenge for all countries throughout the world. Climate change is an emerging concern not only for environment, but also for development.
- Cambodia is highly vulnerable to climate change and has been categorized as having relatively low adaptive capacity to changing climate conditions compared to other Southeast Asia countries and thus is highly vulnerable to climate extremes.

- Most Cambodian households are engaged in **agriculture**. The main agriculture commodity in Cambodia is rice. Although the agricultural productivity has increased during the last decade, but it is still much lower in Cambodia compared to neighboring countries. In recent years, we have witnessed more frequent and severe floods and droughts, which have resulted in a significant impact to agriculture sector as well as to other development sector and considerable economic losses
- Attention paid to improving public awareness raising and integrating the concepts of climate change adaption and mitigation of greenhouse gas into sectoral and national sustainable development plans, are becoming more concerns nationally and internationally.

COUNTRY: CAMBODIA

Members of the group:

1. Dr. Kang Kroesna
2. Mr. Chea Chanthou
3. Mr. Hok Kimthourn
4. Dr. Mak Souen

Methodologies

- Two target groups that their works related to climate change and agriculture sector were selected for the study
- The group division basically depended on the role and responsibility of each concerned institution
- Those two main target groups are: (i) the concerned trainer's institutions and (ii) trainee's institutions.

The concerned trainer's institutions

- The concerned trainer's institutions consists of
 - Climate Change Department of Ministry of Environment (MoE),
 - Department of Agricultural Extension,
 - Department of Plant Protection, Sanitation and Photo-sanitation and
 - Department of Agricultural Land Resource Management of Ministry of Agriculture, Forestry and Fishery (MAFF)

The concerned trainee's institutions

- The concerned trainee's institutions consists of 4 provincial agricultural departments such as Agricultural Department of Kampong Cham Province, Agricultural Department of Kampong Speu Province, Agricultural Department of Kampot Province and Agricultural Department of Kandal Province.

What tools were used for TNA ?

- Desk review of existing training modules/program
- Semi-structure interview by using questionnaires

- Review existing training modules, materials and documents (such as workshops and training reports, personnel profiles etc.) related to TNA matters of different training institutions such as
 - Royal University of Agriculture
 - Department of Agriculture Extension (MAFF)
 - Agricultural Department of Battambang Province
 - Agricultural Department of Kandal Province
 - Agricultural Department of Kampong Speu Province
 - Gender Unit/ Ministry of Agriculture, Forestry and Fisheries
 - CCD/Ministry of Environment

- Semi-structure interview by using questionnaires

Samples and Data Collection

No.	Description	No. of Department/Office	Selected staffs for interview
Trainer's institution			
1	Climate Change Department of MoE	1	3
2	GDA	3	16
Trainee's institution			
1	Provincial agricultural departments	4	51
Total			70. persons



Institutional arrangements and policy set up in the country

Policy set up in the country

At national level

Among the major priorities of ESP (Education Strategy Plan) 2006-2010 and the main policy thrusts are:

- Ensuring easy and equitable access to education, especially to the poor, girls, ethnic minorities and disadvantaged children, as well as those in high poverty areas.
- Universalisation of 9-year basic education to enhance opportunities in life.
- Increasing quality and efficiency of the education services, including through modernization and effective reform.
- Linkages of education and training to the short- and long-term labour market and the society, including life skills education and quality health and HIV/AIDS prevention education.
- Further development of youth and sports sector, with increased attention to youth in various walks of life.
- Institutional development and capacity building for decentralization.

Sub-national level

MAFF has strongly requirement to develop human resource on agricultural technique skill and others skill.

Our policies of HRD are focus on:

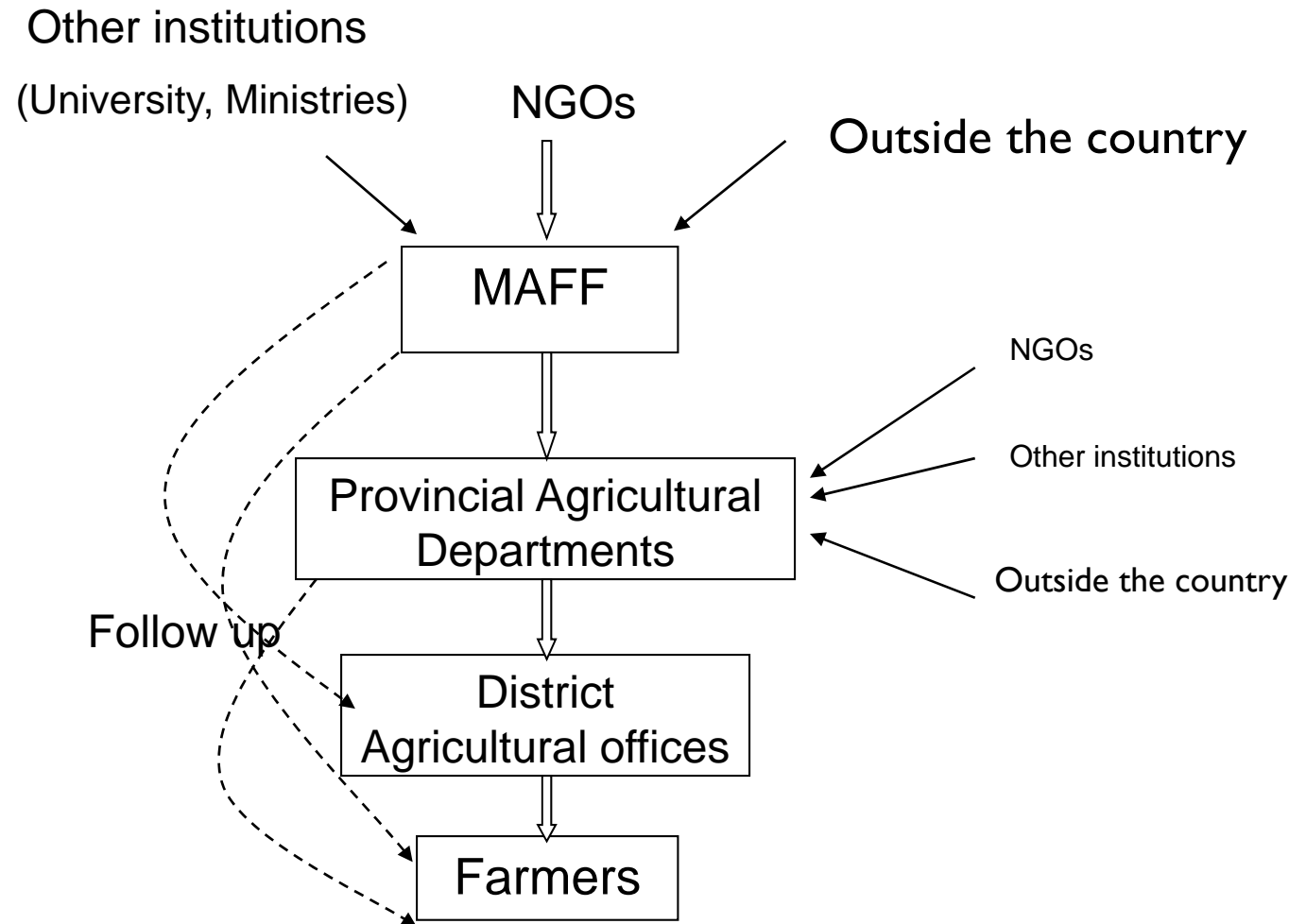
- Short term training;
- Medium term training; and
- Long term training, classify into three degrees (bachelor, master and doctoral degree).

- **Annual Budget for HRD**

MAFF has no annual budget for oversea study, but MAFF always get the scholarship from the donor countries for sending staff to attend oversea training courses.

- In local, the roles of long-term training on agriculture, forestry and fisheries skill are born by Royal University of Agriculture, Prek Leap National School of Agriculture and Kompong Cham National School of Agriculture. These academic organs are the part of public institutions which are under control of MAFF.

MAFF's Institutional arrangements



TNA Results

I. Evaluation of existing training programs

The existing training programs in Cambodia are:

- training program on climate change
- training program on agriculture

The existing training programs on climate change

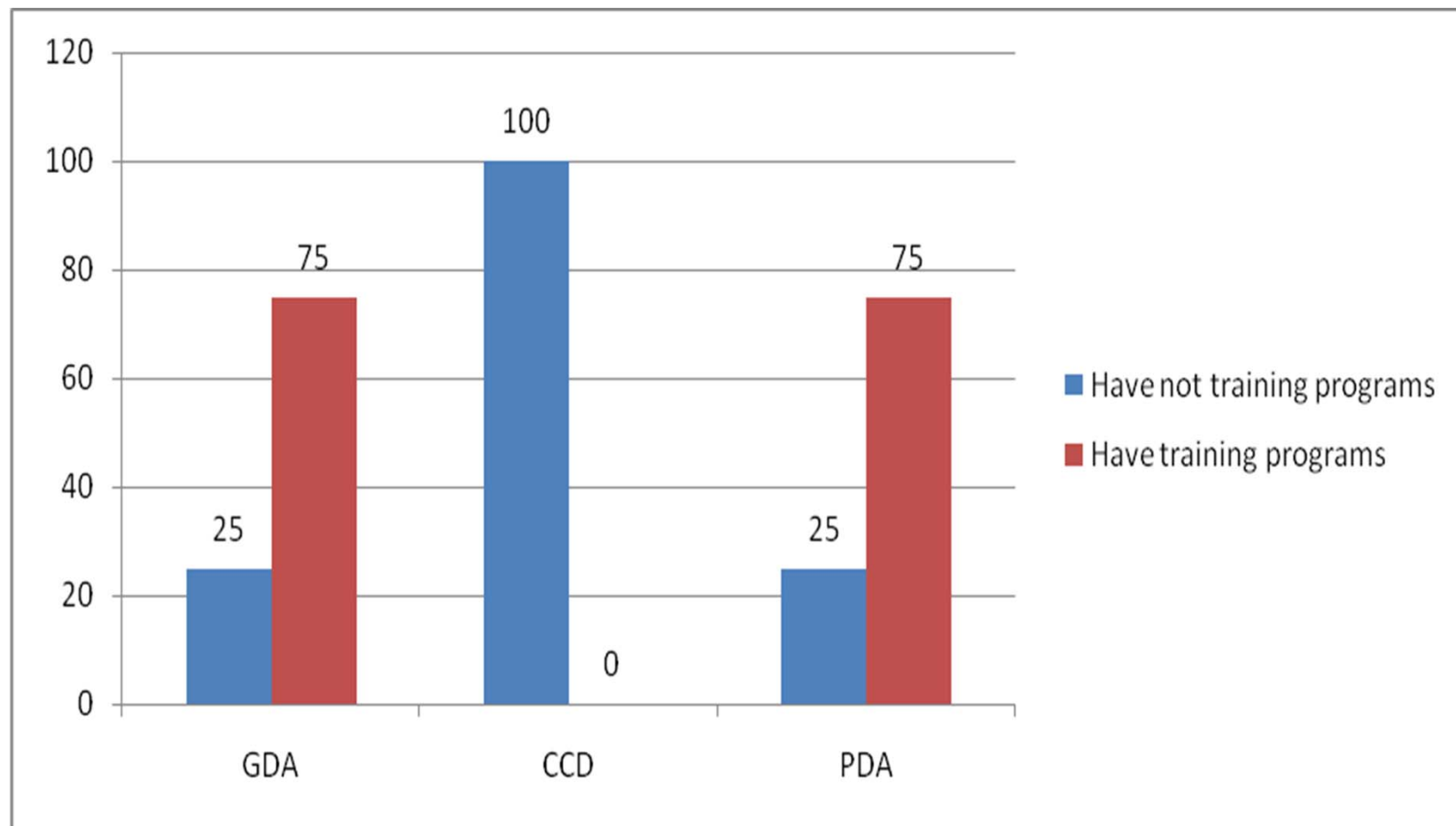
- The existing training programs on climate change concerning institutions were conducted for a period of one or two days through presentations in training workshops, which were organized by Climate Change Department (CCD) of Ministry of Environment.
- The topics of those training workshops included a general knowledge of climate change, the UNFCCC and Kyoto Protocol, climate adaptation and mitigation.

The existing training programs on agriculture

- The existing training programs on agriculture, especially on technologies for rice planting and vegetable farming, were regularly organized for farmers for durations of one or two days by several of the chosen institutions at national and provincial level
- The main topics are
 - Training program on rice production and livestock raising
 - Training program on small scale chicken raising and vegetable growing
 - Training program on rice crop production
 - Training program on straw mushroom growing techniques
 - Programs on Farming Technique Show and Fertilizer Usage
 - Training Modules for Village Agricultural Extension Techniques
 - Training program on gender awareness for agriculture staff etc.

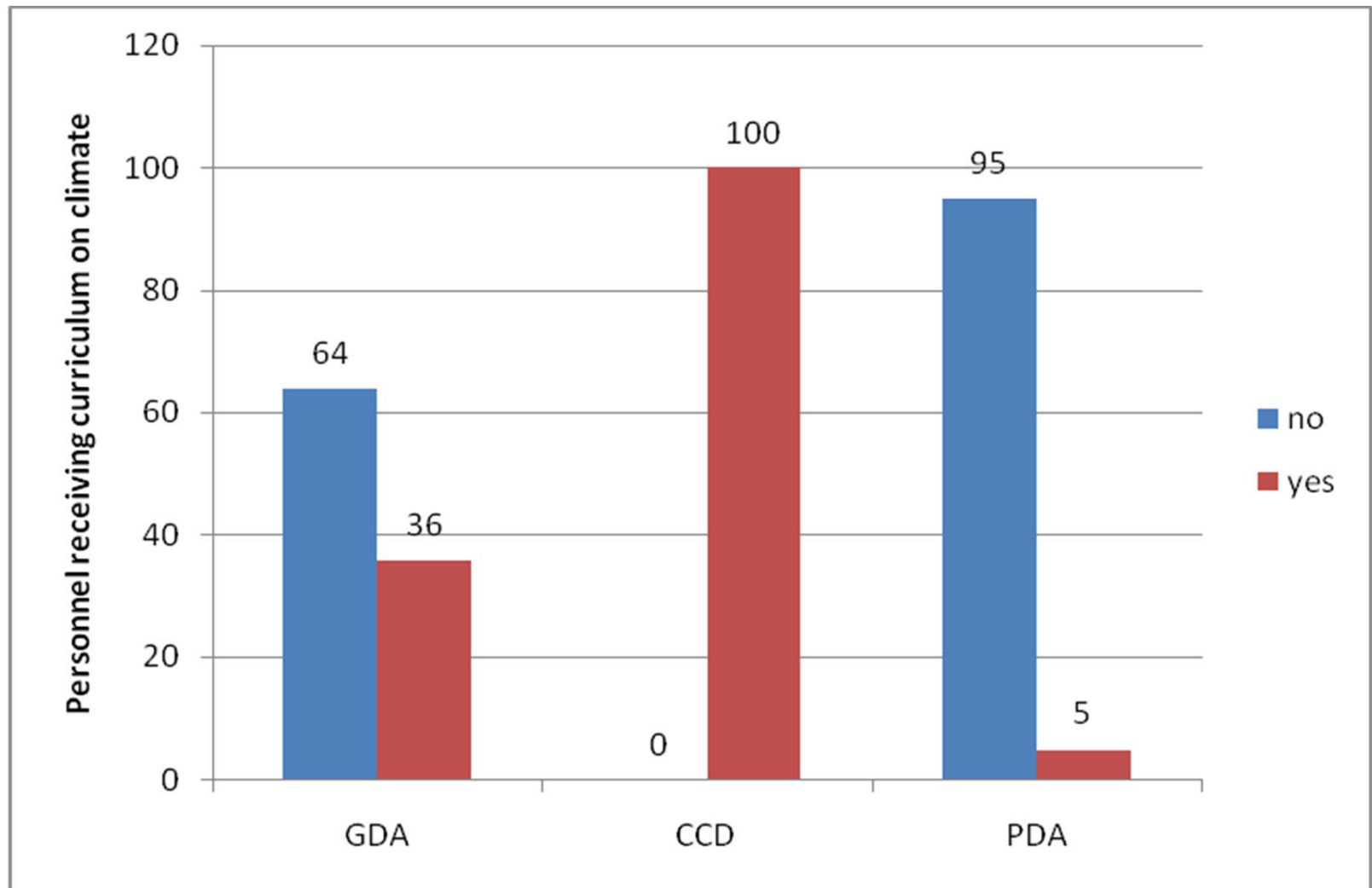
2. Evaluation of training facilities

- Training program on agriculture in each selected institution

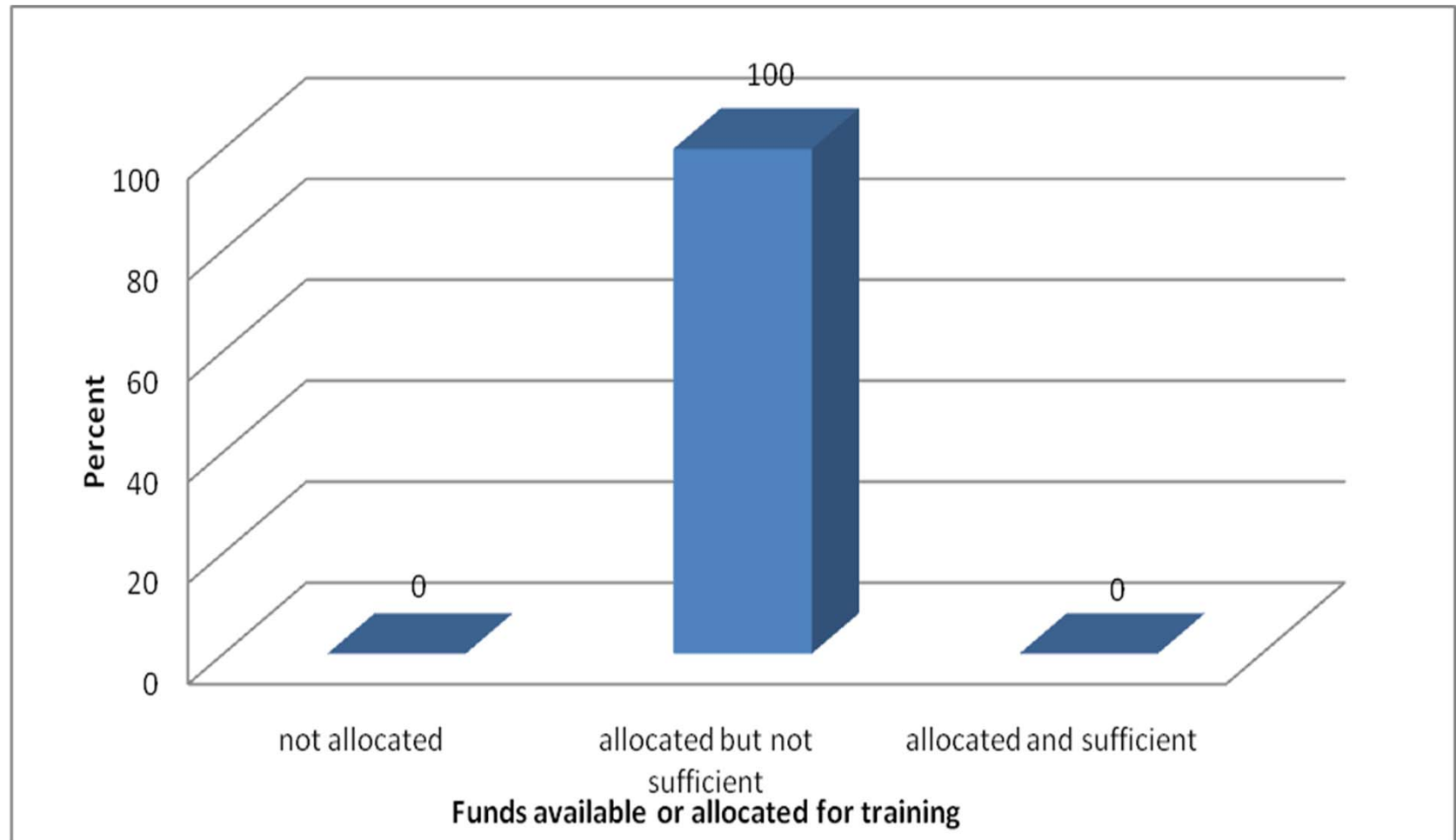


Percentage of answer on department/organization where training was held

Training program/curriculum on climate and climate change by each institution

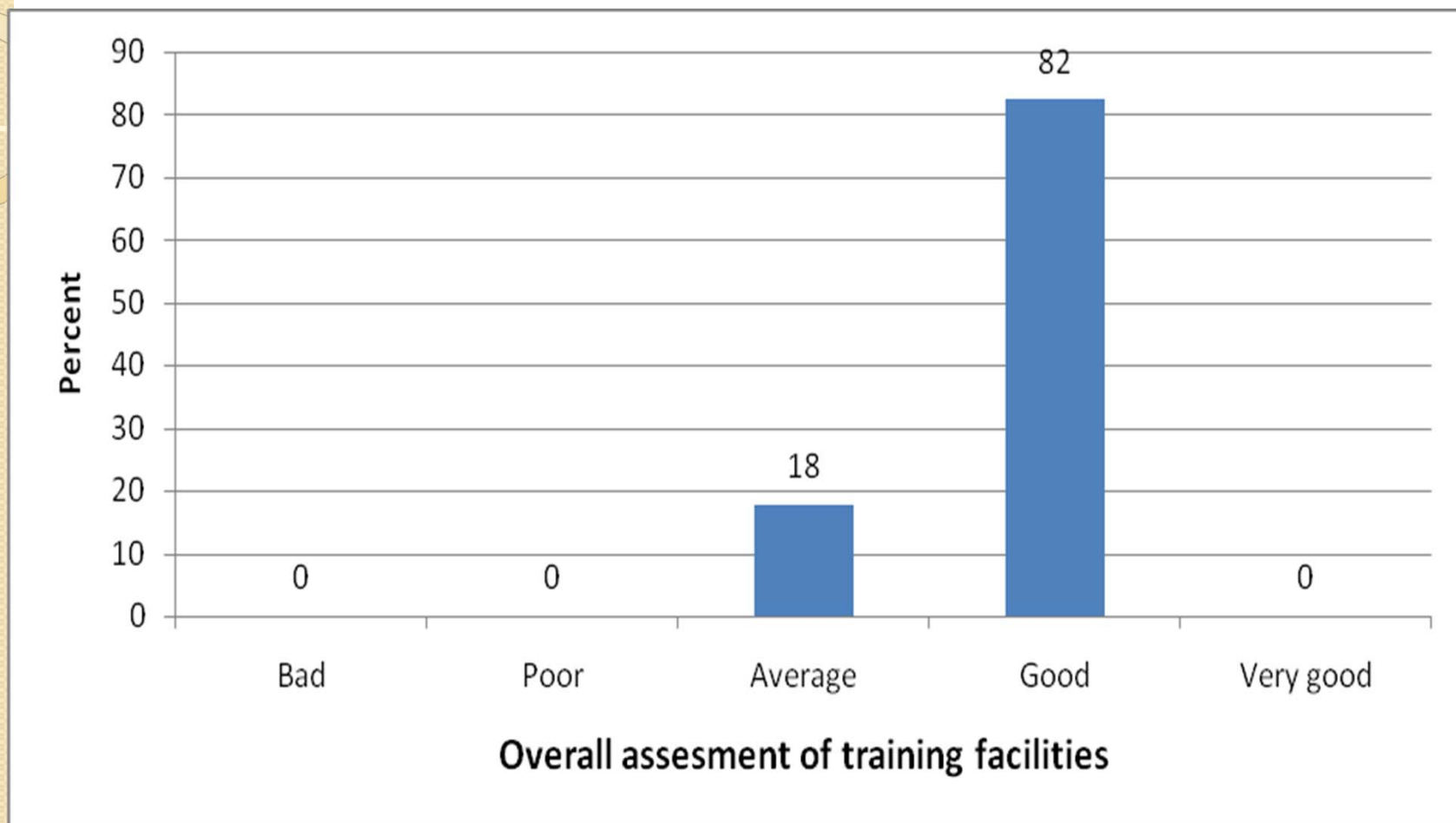


Level of fund allocated for training by each institution



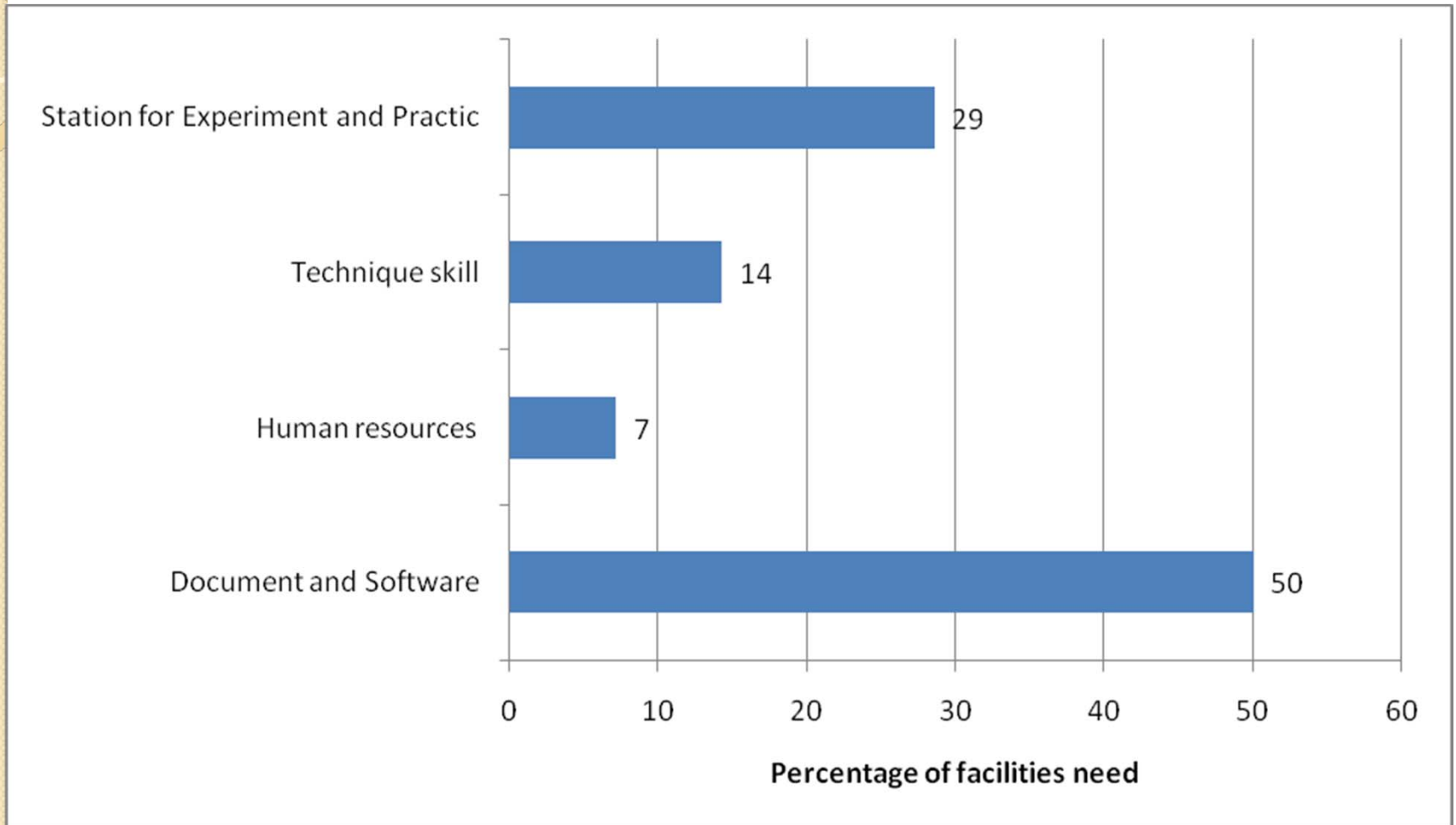
Percentage of respondent answer on level of fund allocate for training

Overall evaluation of training facilities



Percentage of respondent answer for training evaluation

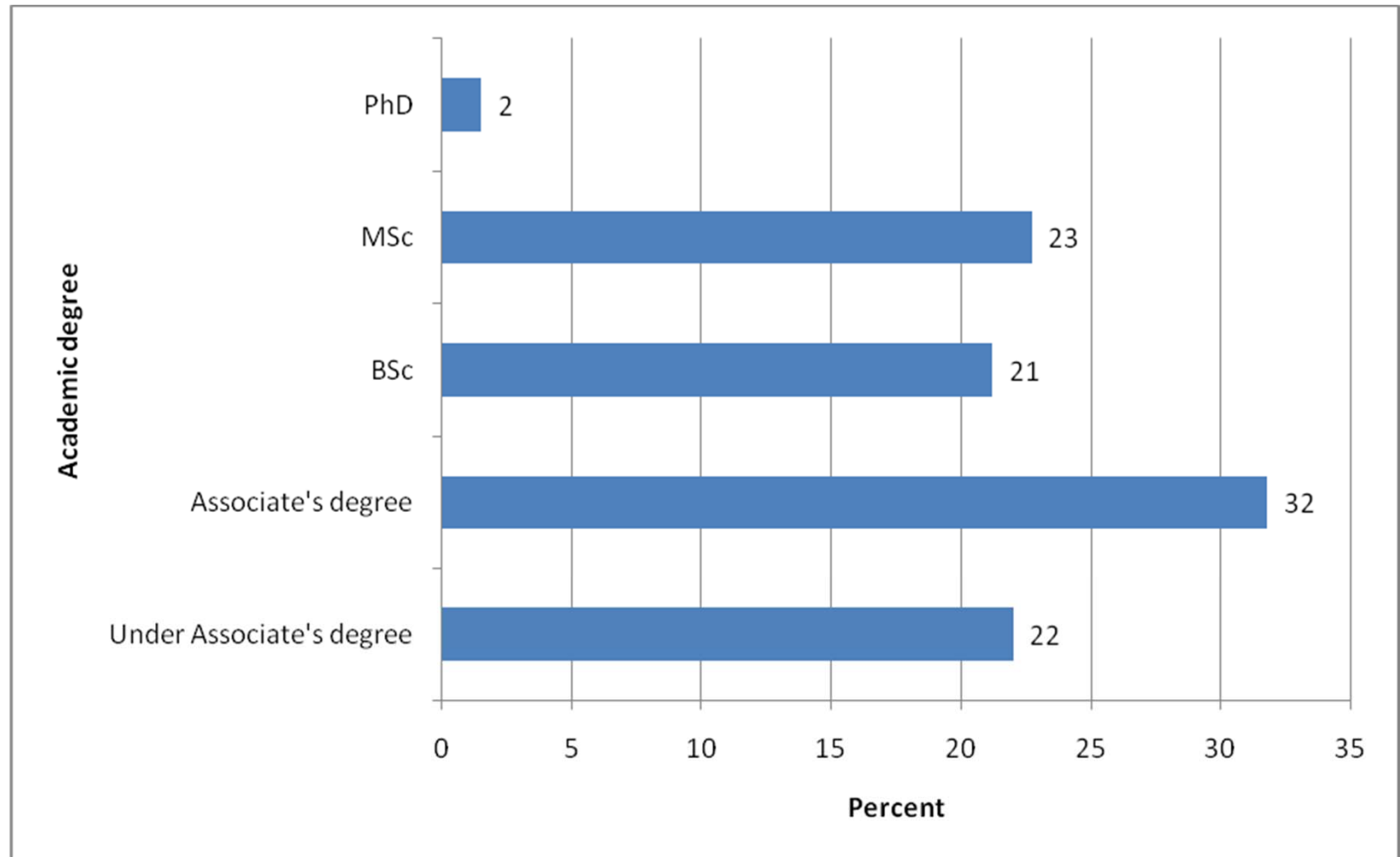
Various need for climate change adaptation



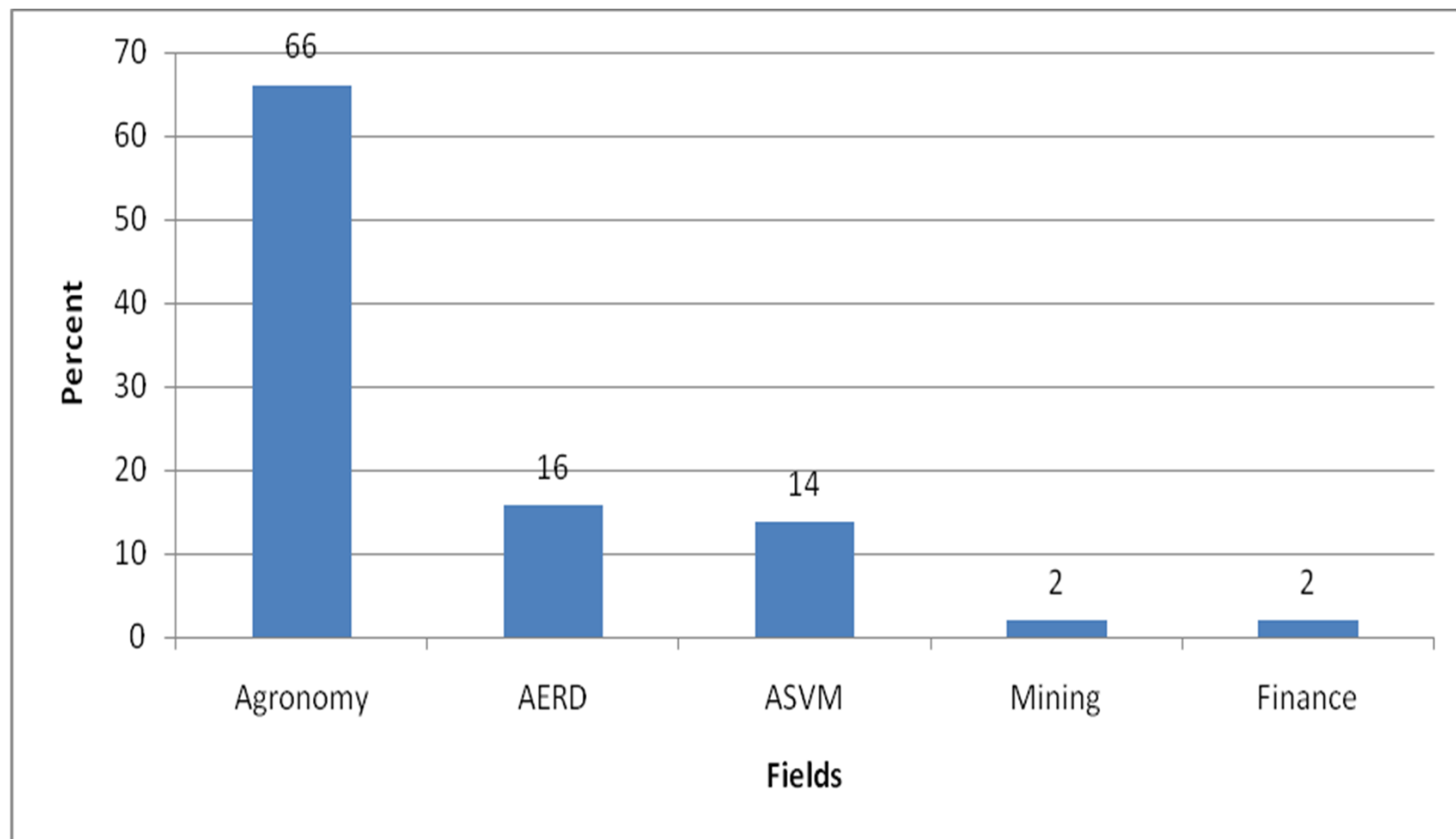
Percentage of respondent answer on various needs for effective training

3. Evaluation of trainers and trainees

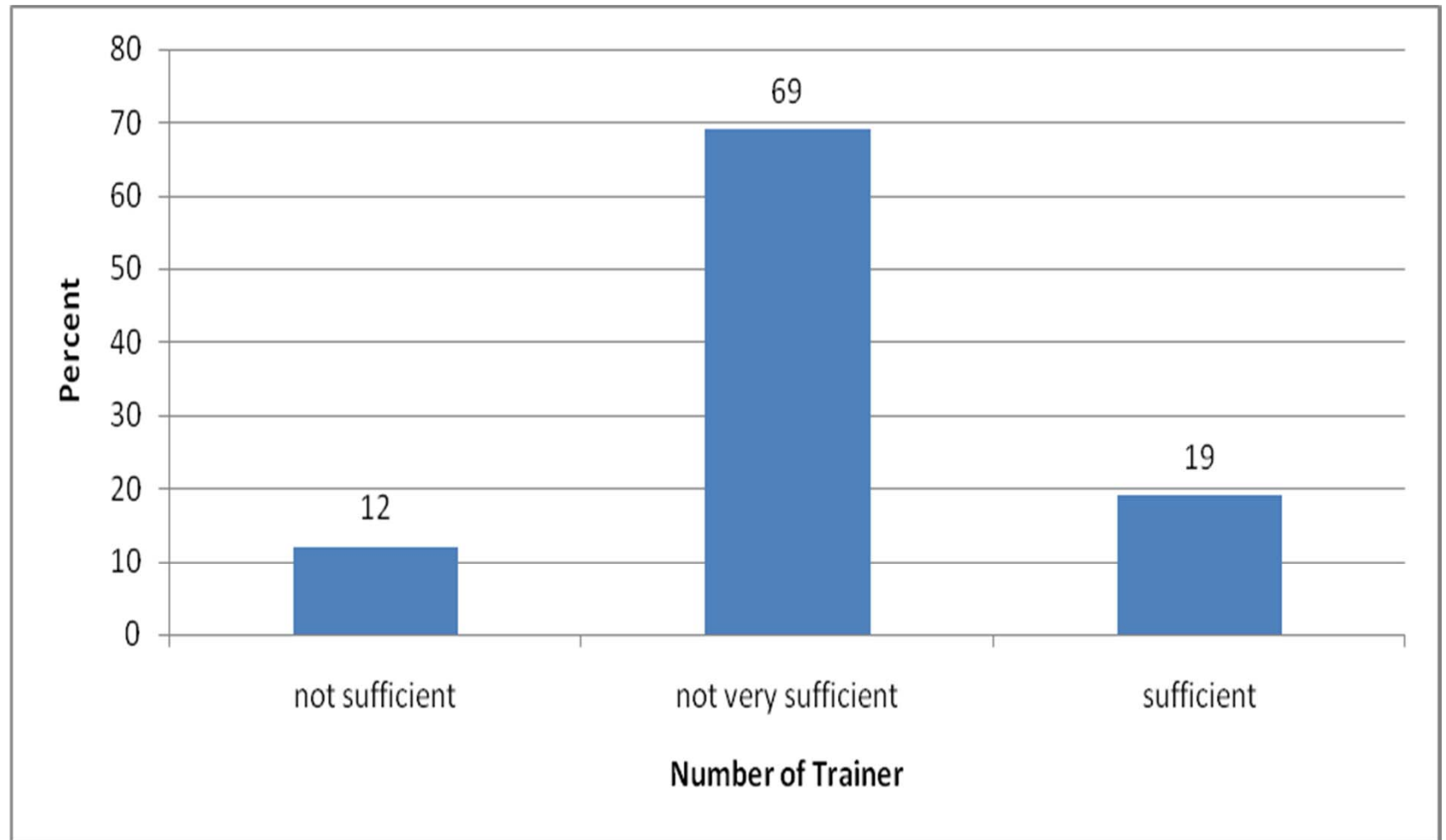
- Educational level of interviewees



Skill areas of interviewees



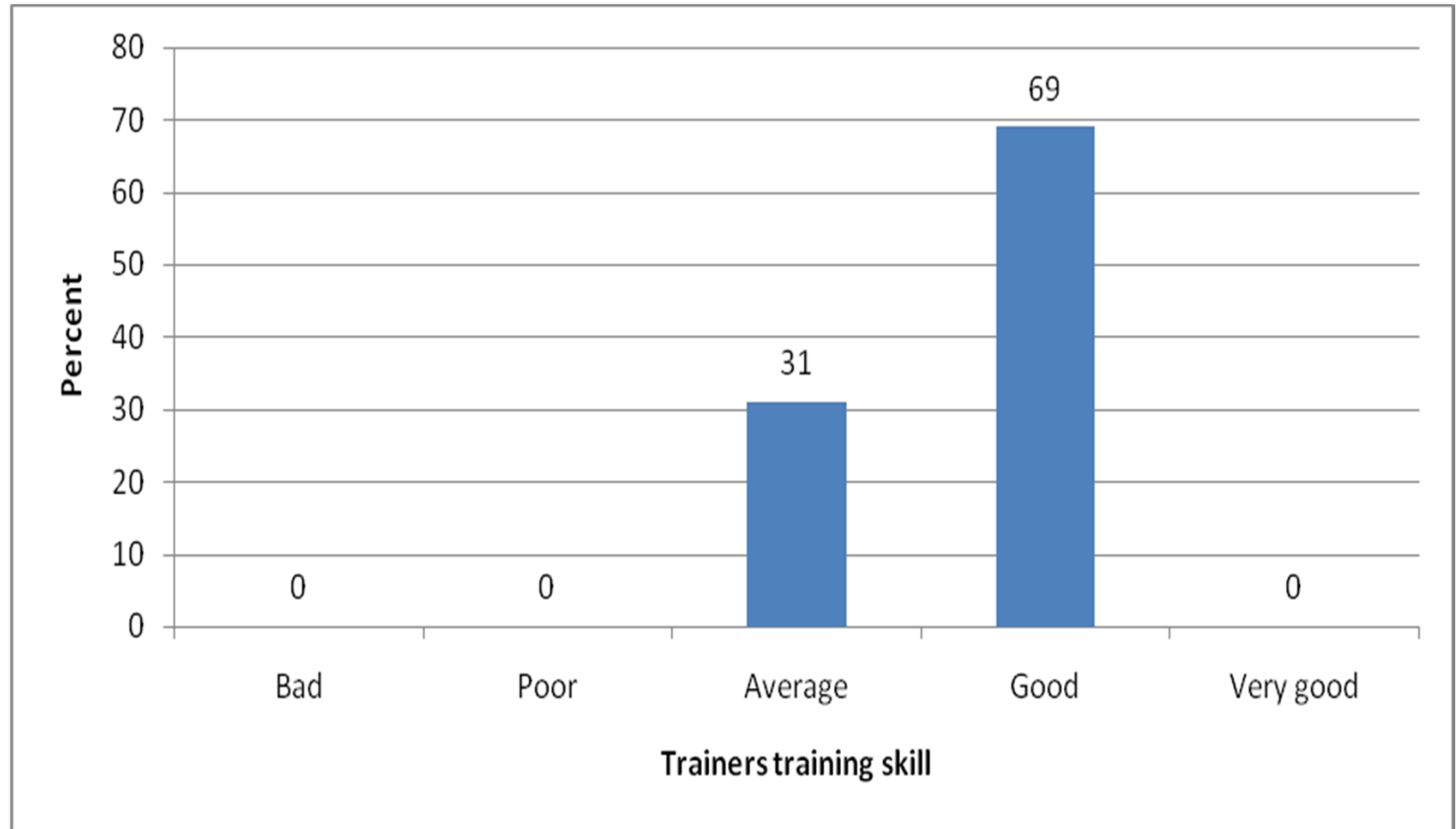
Evaluation on number of trainers



Percentage of trainers who gave training to personnel and their source

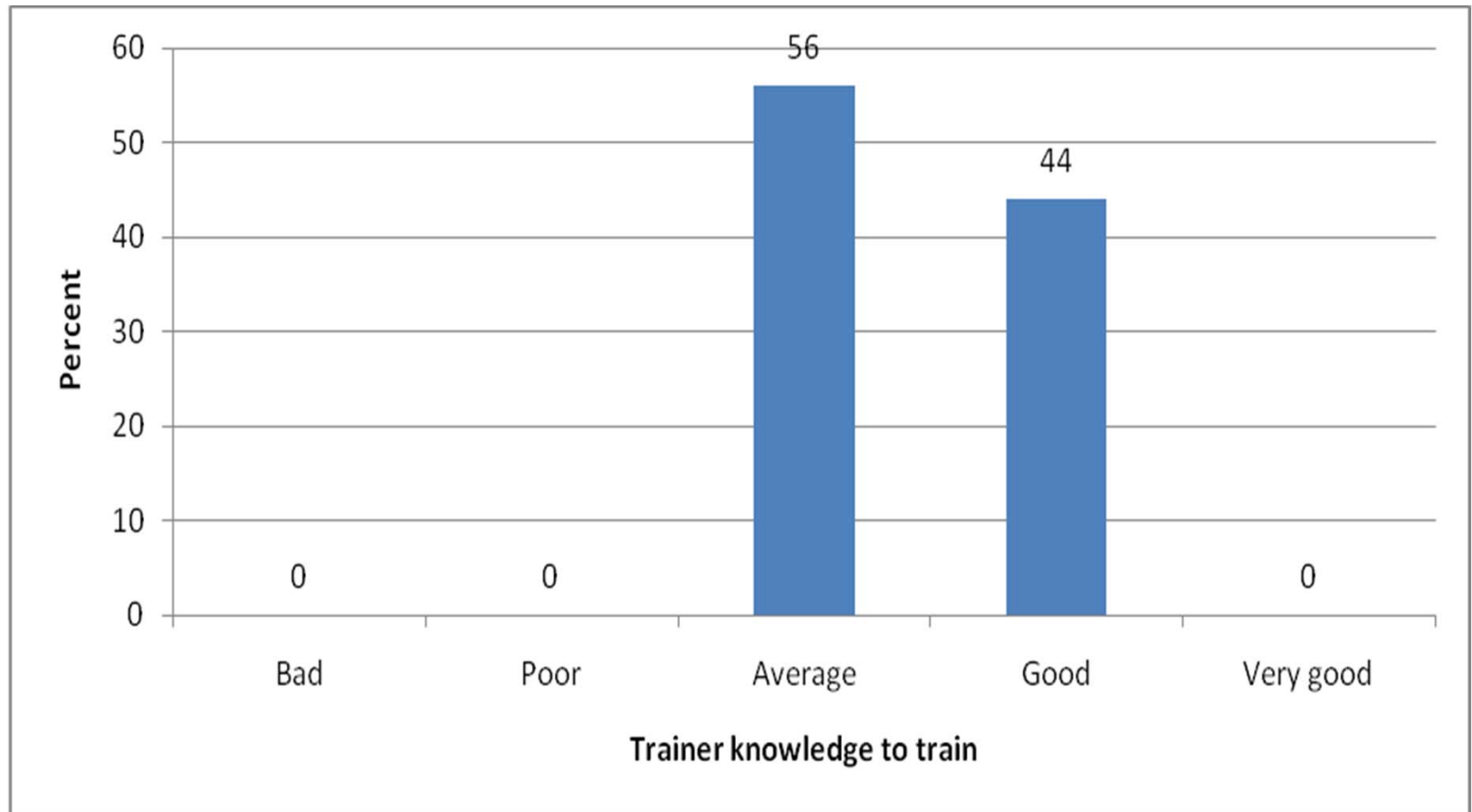
Place \ Trainer	MAFF	University	NGO	Total
University	0 %	100 %	0 %	42 %
in-house training facilities	80 %	0 %	20 %	58 %

Evaluation of trainer skill



Percentage of answer on evaluation of trainer skill

Evaluation of trainer's knowledge



Percentage of answer on evaluation of trainers' knowledge

Self-evaluation of knowledge and skill areas on climate change

	Institution	Rate Knowledge and Skill			
		Bad	Poor	Average	Good
Knowledge	PDA	13	21	45	21
	Department Climate Change	0	0	67	33
	General Directorate	6	0	44	50
Skills	PDA	13	19	51	17
	Department Climate Change	0	0	67	33
	General Directorate	6	0	63	31

The training needs by department

Basic knowledge and skills that need to be imparted to all the staff/trainers

- According to the survey results, the basic knowledge and skills that should be common to all trainers and staffs are:
 - General knowledge on climate change
 - Climate change adaptation and mitigation and more focusing on agriculture sector.

Specific knowledge and skill areas need to be imparted to specific staff/trainer

- According to the survey results, the specific knowledge and skill areas needed are different by each department as in table below:

The training need at CCD

No.	Training Need	
	Knowledge area	Skill area
1	More deeply climate change vulnerability assessment, assessment of adaptation, mitigation	More deeply climate change vulnerability assessment, assessment of adaptation, mitigation for the whole agriculture sector including livestock raising
2	Climate change and economic development assessment	Cost and benefit analysis of the adaptation and mitigation options
3	Climate change policy and strategy development	National Climate change policy, strategic and action plan
4	International negotiation	Climate change negotiation skill
5	Modeling	All climate change modeling

The training need at GDA

No.	Training Need	
	Knowledge area	Skill area
1	Policy making	Climate change policy making
		Strategy for GHG reduction
2	Vulnerability assessment and impact analysis of climate change	Vulnerability assessment and impact analysis of climate change and adaptation options development in agriculture sector
3	Climate Change Technology implementation	Implementing technology in agriculture sector
4	Agricultural science	Soil classification
		Soil nutrient management
		Agricultural land use
		Land resources management
		Sanitary phytology
		Pest control

The training need at PDA

No.	Training Need	
	Knowledge area	Skill area
1	Facilitation skills	Facilitation skills in climate change Community facilitation
2	Management skills	Administrative accounting
3	Information Technology	Word and Excel
4	Program on ArcGIS	Interpretation on satellite images
5	Agriculture and Climate change adaptation development.	Climate change adaptation techniques for farming , rice cultivation, livestock raising and fish farming How to apply adaptation technology on climate change in the agricultural sector Crop adaptation to climate change Livestock raising techniques suitable for climate change
6	Agricultural Science	Changes in land use and carbon in land Rice production Vegetable production Pest control Technology on animal raising Fish, frog and eel production Agriculture and human welfare
7	Sustainable agriculture	Usage of fertilizer, insecticide and pesticide Communities compromise Communities development
8	Agricultural mechanization	Plough technique
9	Farming technique	Impact of different factors on crop production
10	Water and agriculture	Water management Irrigation system and management
11	Project management	Project appraisal Project writing

Priority topic by each departments

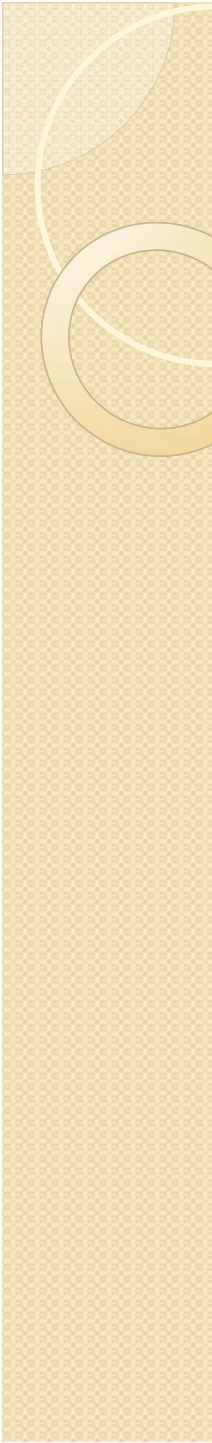
No.	Training Needs	
	Knowledge area	Skill area
CCD		
1	Climate change and economic development	Cost benefit analysis of the adaptation and mitigation options
2	Climate change policy, strategy and action plan development	National climate change policy, strategy and action plan
GDA		
1	Vulnerability assessment and impact analysis of climate change	Vulnerability assessment and impact analysis of climate change and adaptation options development in agriculture sector
2	Climate change technology implementation	Implementing technology in agriculture sector
PDA		
1	Agriculture and climate change adaptation development	Climate change adaptation techniques for farming, rice cultivation, livestock raising and fish farming.
		How to apply adaptation technology on climate change in the agricultural sector

Needed institutional facilities

Needs for Infrastructure	Institution			Total
	GDA (%)	CCD (%)	PDA (%)	
Training material	35	0	14	48
Technical Data	31	2	8	41
Means of Communication	19	0	6	25
Implementing Budget	14	3	8	25
Human Resources	6	3	5	14
Means of Travel	8	0	3	11

What are priorities of contents or subjects matters needed

1. Climate change adaptation techniques for farming, rice cultivation, livestock raising and fish farming.
2. Vulnerability assessment and impact analysis of climate change and adaptation options development in agriculture sector
3. Cost benefit analysis of the adaptation and mitigation options



What challenges you found from TNA that you foresee when conducting the course in future ? *(things to keep in mind when designing the modules)*

- Module implementation (Sources of funding)
- Participation
- Cooperation of concerning institutions

Conclusion

- Most of the technical officials have had inadequate opportunity in receiving capacity building
- Many respondents of all departments at all level are interested in the subject of CC.
- Taking into account the scarce resources, this subject should be organized for PDA officials whose are working closely with farmers.
- Furthermore, General Knowledge on Climate Change should also be attached to build the basis for better understanding on mitigation options as well as sustainable development and low carbon development
- The trainings, if already organized, should be conducted in mother tongue with some English-Khmer bilingual terminologies for less than a week's time for each event
- Participatory learning methods should be employed though lectures, at which point this should be part of it. Field trips, either actual or visual, should be included for effective learning.

Thank you for your attention !