Social Network Analysis

Final Report

Improving Regional Food Security in the South Caucasus through National Strategies and Smallholder Production

Document Prepared for: Oxfam
Subject of Consultation: Social Network Analysis (SNA)
SNA Implementation Timeframe: September, 2015-February, 2016
Coverage and Target: Alliances and Civil Society Organizations (CSOs) in Armenia and Georgia
Prepared by: Tikhon (Lasha) Bokuchava

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Georgia, Tbilisi

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1. Background

The 4-year EC funded Project, *Improving Regional Food Security in the South Caucasus through National Strategies and Smallholder Production*, was launched in September 2013 in Armenia, Azerbaijan and Georgia and aims to improve food security and nutrition through its advocacy efforts and inclusion of small-holder farmers' interests in the governance processes. The overall objective of the Project is to contribute to the improvement of food security and nutrition in the South Caucasus through small holder farmers' representation in the governance processes. The 3 main expected results of the Project are:

1. Inclusive and gender-sensitive FSN strategies (which define the priorities and policies on the availability, access and nutritional content of food) are developed and implemented in the 3 targeted countries;
2. Enacted food security and nutrition legislations support local food production and consumption in the 3 targeted countries;
3. Increased representation of civil society through alliances and working groups in FSN strategy/policy decision making processes.

The term *"food security"* covers a broad range of areas including food supply, agricultural productivity, land-use, water scarcity / management, climate change, urbanization, employment, agricultural policies, nutrition and public health. The Project adopts the United Nations Food and Agriculture Organization's (FAO) classification of food security as its conceptual framework which addresses availability, accessibility, utilization and food stability. Within this definition, the Project teams work together with local alliances of civil society organizations to advocate for the development and implementation of such policies / strategies, which will cover the mentioned aspects. In order to support local food production, the participation of small holder farmers is guaranteed and various activities are carried out to address the interests of small producers in these national strategies.

In order to guarantee the process of policy advocacy with the national governments in Armenia and Georgia from *bottom-to-up,* the project is supporting the following alliance networks: Georgian Alliance for Agricultural and Rural Development and the Agricultural Alliance of Armenia. Those two networks – Agriculture Alliance (AA unites 16 organizations) in Armenia and Georgian Alliance for Agriculture and Rural Development (GAARD unites 26 organizations) are the main basis for the Project's policy advocacy actions, as well as the sustainability mechanisms after the finalization of the project. During the first two years of the Project implementation, Oxfam and the mentioned alliances made significant contributions to the national governments of Armenia and Georgia in the agriculture strategies: Strategy for Sustainable Agriculture and Rural Development 2015-25 in Armenia and Agriculture Development Strategy 2015-20 in Georgia. During the upcoming years, the alliances will engage in monitoring the strategies while focusing on the needs of small holder farmers and specific gender-sensitive actions in the action plans and respective budgetary allocations. Considering the importance of the alliances, the Project commenced the mid-term evaluation in September 2015, which had an important timing for the project to reflect on the outcomes and to capture the learning for the improvement of upcoming activities, as well as the identification of potential strategies for the sustainability, especially the sustainability of the developed alliances.

In order to assess the current status of the sustainability of the AA and the GAARD, as well as to study the larger agriculture and livelihoods network of civil society organizations in Armenia and Georgia, the Project

commissioned the study using Social Network Analysis (SNA) methodology in September 2015 within the frameworks of the Project's mid-term evaluation.

The goal of SNA was to implement network analysis of civil and state organizations involved in agriculture and rural development. Analysis identified the peculiarities of communication between each organization and sectors involved in the network. The practice of using SNA is scarce in Armenian/Georgian reality. Accordingly, mostly international practice was used in the process of project planning. Working on the SNA started in September 2015, and the following stages of works were implemented:

- Development of the methodology
- Field works in Armenia and Georgia
- Data cleaning, processing and preparation for the analysis
- Analysis of the results, data visualization and development of a descriptive report

The following document includes a detailed description and analysis of the results of work carried out at each stage of the research. Oxfam offices in Georgia and Armenia were actively involved within the work processes. Furthermore, during the preparatory process of the methodology, we received assistance from international experts with their rich experience of conducting similar research. On behalf of the Project team, we would like to thank everyone who contributed to the successful implementation of this research project.

2. Aims and objectives of SNA

The Regional Food Security Project is a policy advocacy project, aiming for the change of national policies. The process of the policy change represents the aim itself, which is to bring the impact at scale with the collaboration of other civil society organizations, in a manner to guarantee the process from bottom-to-up. This approach gives the possibility to guarantee the sustainability of project results through capacitating the alliances developed within the frameworks of the project with further advocacy and policy implementation oversight.

Thus, the main aim of SNA was to answer the key questions on the sustainability of the main tools of the project, alliances AA and GAARD, and develop evidence based approaches for the Project's exit strategy. The findings of the SNA will be used by the country teams of Armenia and Georgia as a tool for identifying the main gaps and challenges in the current status of the alliances and prepare the exit strategy

Based on the number of consultations both within and beyond Oxfam, the SNA key questions were identified as following:

- How sustainable are the civil society alliances developed by Oxfam?
- What is Oxfam's role in the network?
- What is the current capacity of the network for sustaining the monitoring function of strategy implementation?
    - What are the current dynamics and trends within the network/how can the network of CSOs be described?
    - On what basis do these CSOs work together?
    - Which organizations are central to the network?
    - What types of organizations are most likely to work together on food security and nutrition?
    - What has been the role of women's rights organizations?

- Which parts of the network should we focus on in order to strengthen the coordination and guarantee the sustainability?

3. What is a SNA and how can we use it as an analytical tool?

A social network is any type of relational ties or links between organizations and institutions. Social network analysis (SNA) is the use of network theory to study individuals as embedded in a network of relations. It looks at relationships in terms of nodes and ties, nodes are the individual actors (or organizations) and ties are the relationships linking them. The defining feature of SNA is the focus on the structure of relationships between actors rather than the characteristics of the actors or the rational choices individual actors make. At the network level, SNA helps us to understand the overall cohesiveness of a network and the degree of interaction between network members. At the individual level SNA helps us to understand if a member is central or peripheral, if a member is a broker or a bridge between other members, and if members cluster together in small groups.

Network analysis is an analytic tool to assist in understanding and helps in decision-making. As with any tool, one must understand what its basic components are and how to use them. As stated above, a network is a set of relationships between organizations and institutions. In network terminology, organizations or institutions represent "nodes" and the relationship linking them represents "ties".

The case presented below of an organizational network representing 9 non-governmental organizations (NGOs) can be taken into consideration as an example (Table # 1). Hypothetically, these 9 NGOs were asked whether they have had working relations with each other on food security issues within the last 12 months. The table represented below depicts the map of the connections, where each cell containing an "X" indicates cooperation between the 9 organizations on food security issues within the last 12 months.

Table #1

	NGO-1	NGO-2	NGO-3	NGO-4	NGO-5	NGO-6	NGO-7	NGO-8	NGO-9	Total
NGO-1		X	X							2
NGO-2	X		X							2
NGO-3	X	X		X						3
NGO-4			X		X			X		3
NGO-5				X		X	X			3
NGO-6					X		X			2
NGO-7					X	X				2
NGO-8				X					X	2
NGO-9								X		1
Total	2	2	3	3	3	2	2	2	1	20

The information presented in the table above can be reflected on a MAP, where the relationships between organizations are expressed via directed arrows. Such visualization simplifies and improves the perception of the information as well as visibly displays who each organization has a connection with.

Map #1
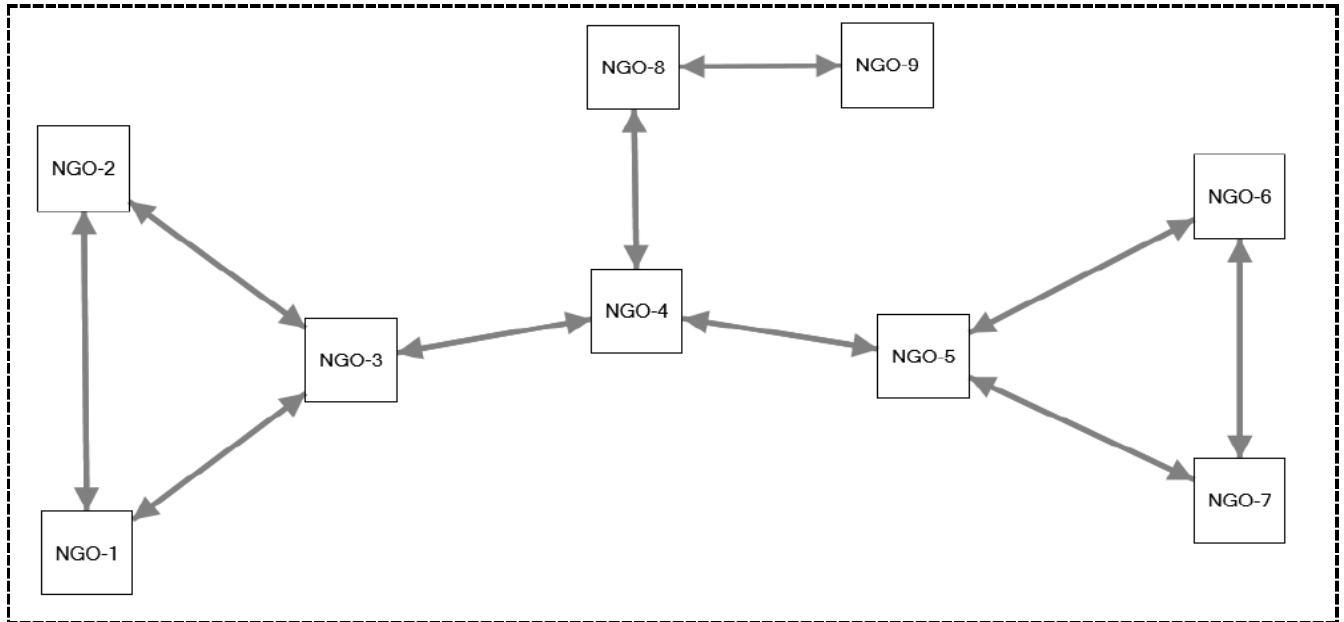
The above listed diagram shows that NGO-4 has a connection with NGO-3, NGO-5 and NGO-8. Additionally, "NGO-1, NGO-2, NGO-3" and "NGO-5, NGO-6, NGO-7" form two independent sub-groups. These two independent sub-groups are interconnected by NGO-4, which serves the function of a "Bridge".

NGO-3, NGO-4 and NGO-5 are central organizations, since each has ties with 3 other organizations within the network. However, the larger bearing among them falls upon **NGO-4**, as by taking it out of the equation, the network divides into three independent sub-groups. By the elimination of no other organization does the network separate in more than 2 independent sub-groups:

- NGO-1, NGO-2, NGO-3
- NGO-5, NGO-6, NGO-7
- NGO-8, NGO-9

In the presented example, **NGO-4** is set apart from the other organizations by another factor - it is by far the fastest reached organization by any other party by executing only two steps, as demonstrated by the illustration of connection path from NGO-1 to NGO-4:

Network Analysis techniques embody a number of mathematical characteristics clarifying the network structure more plainly. One of such basic characteristics is **Density**. In the example above, 72 theoretical connections were possible among the represented 9 NGOs (9 NGOs * 8 NGOs, excluding connection with itself). However, in practical terms, only 20 connections were determined which signifies that out of the 72 possible connections, only 20 were present. Therefore, the network density in this case is approximately 28% (20/72 * 100). Network density can range from 0% (no links between any network members) to 100% (all members are linked to each other). The denser the network, the easier information and resources flow through it.

4 types of the main conclusions can be drawn from the above presented example:

1) Network consists of three sub-groups, which can often be referred to as "Clusters" - **Map #2**
2) Four organizations within the network can be distinguished as serving the function of a Bridge - **Map #3**
3) NGO-4 is the most central organization in the network, as by its removal, the network divides into 3 independent subgroups; NGO-4 plays a major role within the network as a hub, in addition to all the other organizations being separated from it by only two steps - **Map #4**
4) NGO-9 is a peripheral organization - **Map #4**
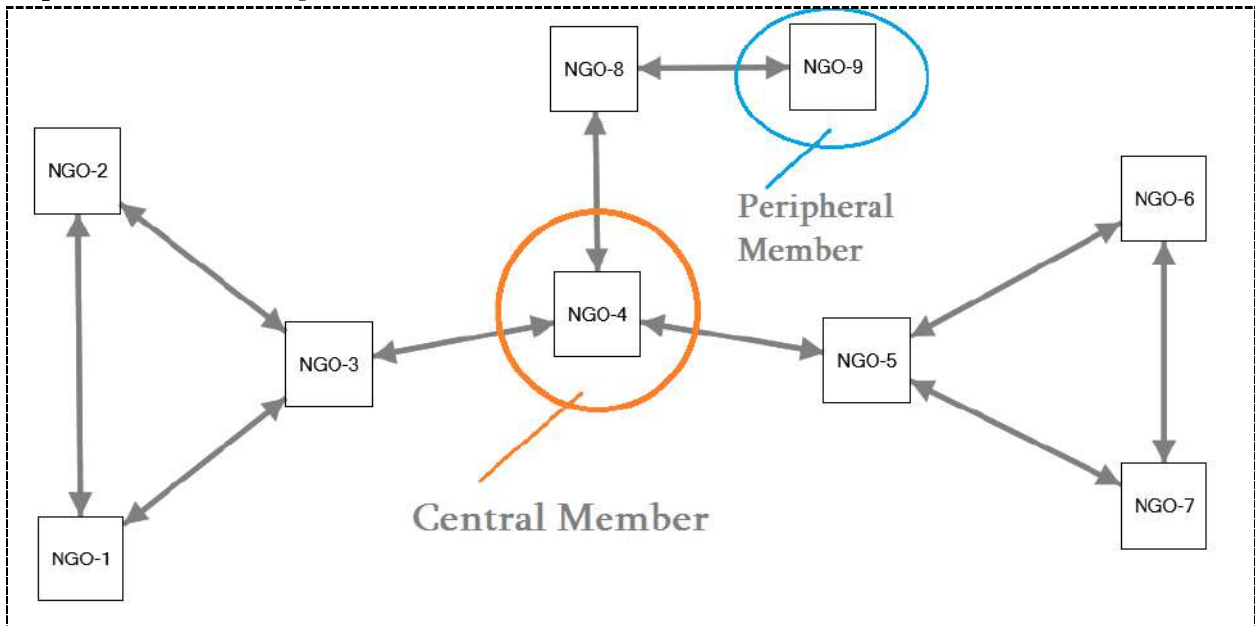
Map #2 – Sub-groups
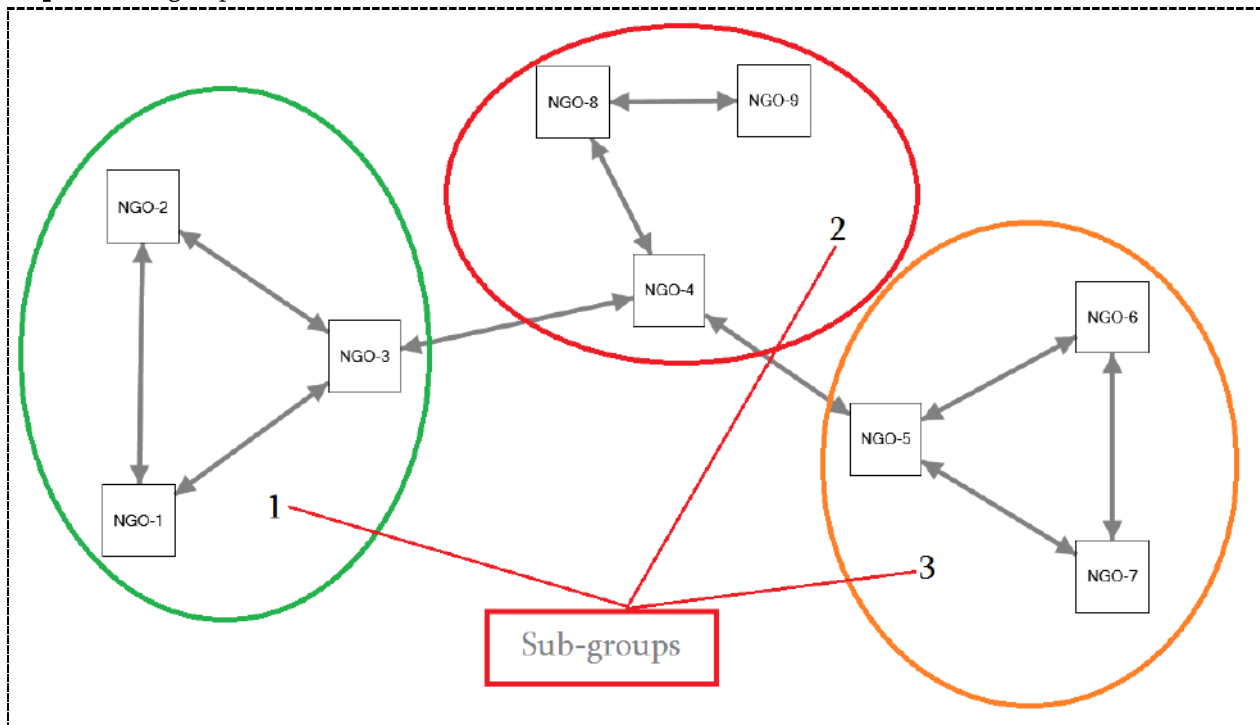
Map #3 – Bridging Members
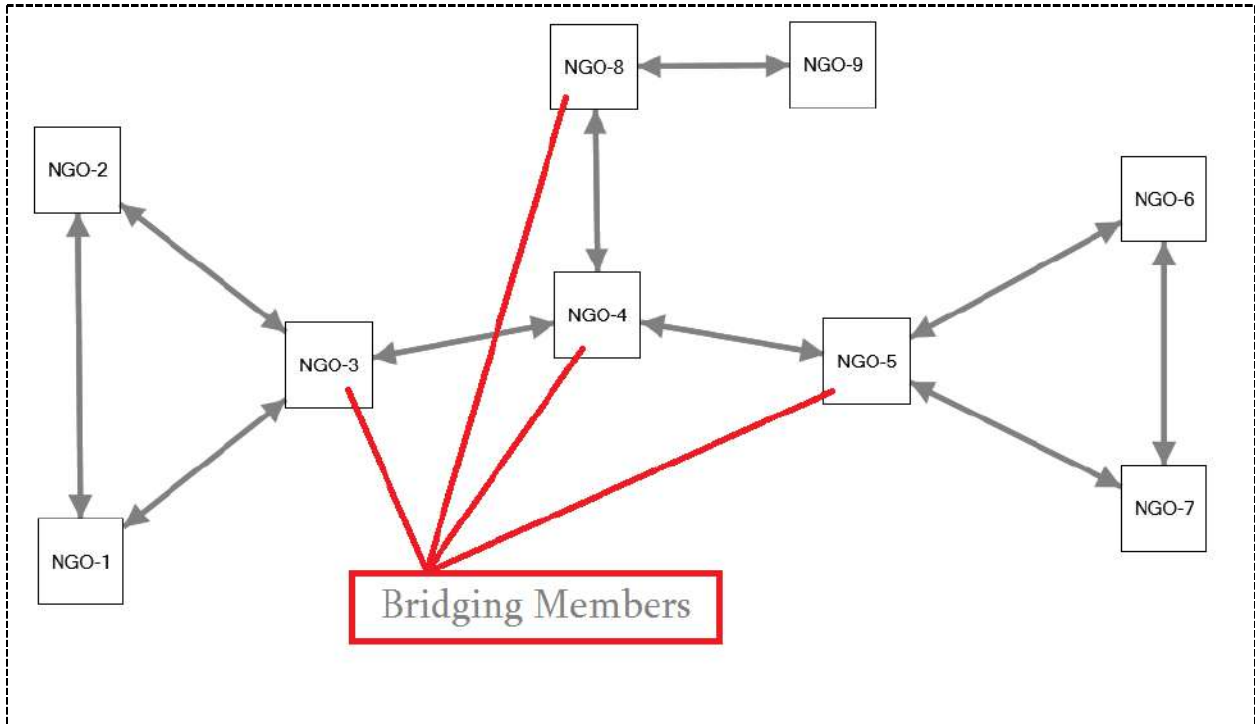
Map #4 – Central and Peripheral Members

4. Methodology

Methodology preparatory process was carried out throughout September-December of 2015. As mentioned above, practices of using SNA is scarce in Georgia and Armenia, therefore SNA experts with international experience were sought, as a result of which the methodology tailored specifically for Armenia and Georgia was developed based on the analysis of the resources available on the Internet together with their assistance. The process of the methodology development can be divided into FOUR stages:

1. **Preparatory works** - Activities of the Georgian and Armenian offices of Oxfam were thoroughly studied, in the course of which the SNA team was acquainted with the activities and publications carried out in recent years within the field of FOOD SECURITY.
2. **Getting acquainted with international and local experiences relating to SNA** – Two international (BRICSAM - Cross-country consolidated report on National Consultations; VANUATU - Social Network Analysis Report) and one local (Save the Children, Georgia - NGO Network Analysis Handbook) cases were considered for the SNA.
3. **Survey Design** – The following stage determined the types of organizations to be inquired, as well as the developing sampling frames and indicators for the assessment of the network structure.
4. **Preparation of survey instrument** – A considerable amount of time was devoted to the formation of the research questionnaire, in the development of which, representatives of Oxfam Georgia and Armenia were actively involved. Additional assistance was received from the SNA consultants Matteo Bassoli and Larry Dershem. Respondent surveying was conducted through online research technique. Survey Monkey tools were used to create the online questionnaire.

Over ten meetings and conference calls were planned during the preparation period with all involved parties. The following individuals were actively involved in work meetings for which we are grateful to every one of them:

- Ana Kvintradze - Evaluation manager, Regional FS Project MEAL-C, Oxfam in Georgia
- Benoit Trudel - Evaluation commissioning manager, Regional FS Project PM, Oxfam in Georgia
- Nino Edilashvili - Food security officer, Oxfam in Georgia
- Levan dadiani - Livelihood project manager, Oxfam in Georgia
- Lasha Bokuchava – Key SNA Consultant, Oxfam in Georgia
- Alexey Petrosyan - Food Security Officer, Oxfam in Armenia
- Vadim Uzunyan - Project Manager, Oxfam in Armenia
- Kristine Hovhannysian - Media and Communication Officer, Oxfam in Armenia
- Mikheil Jibuti - Consultant, Association of young economists Georgia
- Larry Dershem - Design, Monitoring & Evaluation Advisor, Middle East/Eurasia Region, Save the Children
- Matteo Bassoli - PHD, Assistant Professor in Political Sociology, eCampus Online University
- Thomas Dunmore Rodriguez - Deputy Global Programme Manager, Empowering CSO Networks in an Unequal Multi-Polar World

The methodology was developed on the basis of the following schedule:

Table #2

N	Stage	September, 2015															December, 2015
		Week															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Preparatory works	🟩	🟩	🟩	🟩												
2	Getting acquainted with international and local experiences					🟩	🟩	🟩									
3	Survey design								🟩	🟩	🟩						
4	Preparation of survey instruments											🟩	🟩	🟩	🟩	🟩	
	Starting point for Fieldwork																🟧

4.1. Preparatory Works

The preparatory period was devoted to the study of Oxfam's work specificities, the analysis of publications and upcoming planned activities:

1. Study of Oxfam's mission, activity and organizational structure
2. Study of the structure and indicators of the monitoring and evaluation component
3. Reviewing documents related to food safety on Georgia and Armenia:
   3.1. Quarterly Reports
   3.2. Annual Narrative Report
   3.3. Project M&E Framework
   3.4. Project Monitoring, Evaluation, Accountability and Learning (MEAL) Strategy
   3.5. Project Baseline report and summary
   3.6. Nutrition study results of Armenia
   3.7. Georgia policy diagnostic review
   3.8. Policy Papers on Nutrition
   3.9. GAARD meeting communiqué
   3.10. The Strategy for Agricultural Development of Georgia 2015-2020

4.2. Getting acquainted with international and local experiences related to SNA

For the purpose of studying international and local experience, the following documents were studied:

1. Cross-country consolidated report on National Consultations:

Empowering Civil Society Networks in an Unequal Multi-Polar World - This report was co-authored by Mariano De Donatis and Thomas Dunmore Rodriguez at the Global Programme Unit for ECSN-BRICSAM.

As part of the national consultations in Russia, China, India, Mexico and South Africa data was collected from individual members about which other organizations they relate to on a regular basis, and how close and collaborative that relationship is. An attempt was made to standardize and unify a conceptual approach across the countries to facilitate a tentative cross-country comparison across the nationally framed civil society networks. The conceptual perspective of this network analysis places the focus on the organizational level. Information was gathered at the unit of an organization with the interest to collect data on inter-organizational

relations in various ways. Data was collected through online surveys and telephone interviews with representatives of the organizational actors. The relationships identified by the individual organizations were interwoven with each other to connect organizations that work together.

2. **Vachette A. (2014). Social Network Analysis Report:**

Part 1. Vanuatu Networking Patterns for Climate Change Adaptation, Disaster Risk Reduction and Management in Vanuatu. Secretariat of the Pacific Community (SPC) & Deutsche Gesellschaft fur Internationale Zusammenarbait GmbH (GIZ)

SNA was used to map the strengths and weaknesses of information flow and collaboration patterns of networks that were actively supporting the development of national plans and policies to support Climate Change and DRR in Vanuatu. It provided the baseline data on existing patterns and recommendations to improve the effectiveness of the network

3. **Dershem, L., T. Dagargulia, L. Saganelidze, S. Roels. (2011). NGO Network Analysis Handbook:**

How to measure and map linkages between NGOs - Save the Children. Tbilisi, Georgia

Save the Children used SNA to understand and improve the network of youth-focused NGOs working in youth confidence building initiatives. It used SNA to understand the formal information sharing, formal resource sharing and cooperation between the NGOs on formal advocacy activities. By measuring and mapping this network, the project used the findings to strengthen a more cohesive and productive NGO network.

4.3. Survey Design

"NGO Network Analysis Handbook" was hugely helpful on the stage of planning the SNA design (source: Save the Children, UNDP, NGO Network Analysis Handbook, 2011). Coincidentally, co-author of the above mentioned publication Larry Dershem is involved in the research as a consultant. The execution of the following steps was crucial to the development of the design:

1. Determine the boundaries - who to include and to exclude from the Population/Network
2. Determine the critical issues - the links or relationships we want to measure and understand
3. Establish a relevant timeframe - between which periods the data will be collected

Determine the boundaries

One of the first steps in conducting a network analysis is to determine who to "include" and who to "exclude", this is called, establishing the boundary. This stage calls for the primary question: who should we inquire? The target group for interview included only non-state organizations:

- Non-governmental sector
- Embassies
- Labor and trade associations
- Research institutes and "Think Tanks"

The second inquiry with the process of determining boundaries is: who should we ask about? The target Network is divided into two categories – **STATE organizations** and **NON-STATE** organizations:

- State organizations include:

- Ministries
- Agencies and legal entities of public law
- Departments and public bodies
- Parliament, government and their other branches

■ Non-state organizations include:
- Non-governmental sector
- Embassies
- Labor and trade associations
- Research institutes and "Think Tanks"
- Individual consultants

The following types of Non-state organizations were excluded from the database of the inquired:

■ Cooperatives and social enterprises

■ Media agencies, publishing and advertisement companies

■ Private sector

The snowball principle was used in order to select a target group. A preliminary list of organizations was formed based on the alliances for both Georgia (GAARD) and Armenia (AA). <u>On the first stage</u>, a survey was conducted with members of the alliance, each of them naming all those state and non-state organizations they had been in touch with for the *past year*. Organizations named by the alliance members were additional sources of sampling. <u>On the second stage</u>, all those civil society organizations named by the alliance members and not surveyed on the first stage, were inquired; this procedure was carried out for the <u>third time,</u> ensuring that the majority of network member organizations were covered within the survey.

Determine the critical issues

The objective of the research is to study the types of relations among organizations concerning food security issues. For this purpose, each organization was asked to name all non-state organizations, state organizations and independent consultants they had WORKED with on FOOD SECURITY issues within the last 1 year. Four specific points were defined to identify Food security issues, in order to avoid misinterpretations among the respondents in regards with scope of the field:

■ Agriculture development Strategy

■ Agricultural production

■ Food safety

■ Healthy eating (nutrition)

The format is the partnership among organizations may be <u>formal</u> (memorandum/contract-based) or <u>informal</u>, which does not entail cooperation based on any pre-agreed signed document. The type of cooperation comprises of three provisions:

■ Information Sharing – Exchanging e-mails, attending meetings, telephone conversations and visits

■ Resource Sharing - Sharing projects, exchanging staff or providing space

■ Joint Advocacy - Collecting data on problems/solutions related to Food Security, Analysis and Support of DECISION MAKERS

The respondents were able to indicate whether partnerships were **memorandum** or **contract-based**.

Establish a relevant timeframe

Once the types of organizations to be inquired, about whom to inquire and research topic were determined, all that was remaining was the establishment of a "timeframe" for the research. The precise effective timeline was decided to be **1 year**; therefore, two main questions of the SNA survey are as follows:

Please, name ALL the organizations and independent consultants you have worked with on FOOD SECURITY (Agriculture development Strategy; Agricultural production; Food safety; Healthy eating/nutrition) issues within the **LAST 1 YEAR**"

„Please, describe, what kind of cooperation did you have with on EACH above mentioned Organizations/Consultants over the **LAST 1 YEAR**?"

4.4. Preparation of survey instrument

Recommendations provided by Matteo Bassoli and Larry Dershem were taken into consideration in the course of the questionnaire design stage. The questionnaire covers the following topics:

1. Identification information of the organization: Full name of the organization, Acronym/short version of organization's name, Year of establishment, City where the head office is located;
2. Geographic coverage of the organization within the county of operation;
3. Type of organization;
4. Representation of the organization in the South Caucasus;
5. Information about the organization founders;
6. Assessment of SCALE of the organization: number of paid employees, volunteers, percentage share of women employees, annual operating budget and budget allocation based on the financial sources;
7. Information regarding 3 main DONORS;
8. Organization's fields of activity and primary work area;
9. Organization's areas of partnership with other Non-state organizations, State organizations and independent consultants within the field of FOOD SECURITY: Agriculture development Strategy, Agricultural production, Food safety, Healthy eating (nutrition).
10. Organizations/consultants surveyed organizations collaborated with on food security issues within in the past 1 year;
11. Type of partnership surveyed organizations had with each of the above mentioned organizations regarding food security issues within in the past 1 year: Information Sharing, Resource Sharing, Joint Advocacy;
12. Partnership format: Memorandum and/or contract;
13. Naming of the most influential organization/individual in the field of food security, and the reason respondent organization considered it as such - subjective assessment;
14. List of any other state/non-state organizations which surveyed organization has not worked with, but is willing to cooperate with in the future;
15. Does the surveyed organization work with gender-based organizations and in what specific issues or areas;
16. Identification information of the respondent within the surveyed organization: Name, Position, Phone and Email;

17. Respondent's CONSENT to have their name cited in publications and reports.

The questionnaire was developed in three languages: English, Georgian and Armenian. Online survey technique was selected for surveying of the respondents. Survey Monkey tools were used to create an online questionnaire. Final version of the English questionnaire can be viewed as **Annex #1**, attached this document.

5. Fieldwork

Acquiring consent of the informed individuals to the research subject matter to be studied within the organizations, proved to be a rather complicated process. Fieldwork took place across the period of 8 weeks and was covered throughout December 2015 and February 2016. Average duration of questionnaire completion was defined at approximately 40-50 minutes. It should be noted that surveying of all Alliance member organizations in both countries was not attained. Response rate of other members of the FSN network is even lower. Nonresponse rate has respective influence on the research outcomes. In the event of full response rate, the overall picture would be less biased towards the Alliance, while the connections would be less scarce.

5.1. Fieldwork Coordination

Each country was assigned a field coordinator for the management of field activities: Elene Chumburidze (Georgia) and Gohar Saghoyan (Armenia). Coordinators responsibilities encompassed delivering instructions of questionnaire completion to each target organization, as well as conduction of over-the-phone and/or face-to-face interviews, when required. In certain cases, five or more exchanges of communication with the respondents were necessary in order to clarify objectives of the research, as well as to gain their consent to participate in the survey. Important contributions in the process of interview consent acquisition were made by the representatives of Oxfam GB Georgia and Armenia, namely by Ana Kvintradze and Kristine Hovhannisyan. Contact information of the field coordinators and representatives of Oxfam is included on the cover page of the electronic questionnaire (See Annex #1).

Both field coordinators created new e-mail addresses specifically for the SNA research, via which they conducted all required communications with the target organizations. Respondents were sent the online questionnaire from oxfam.survey@f-s.ge, a specially designated email address for SNA. E-mail structure and content can be viewed in Annex # 2.

5.2. Pilot

Fieldwork activities were preceded by a Pilot research with the participation of 3 organizations, namely:

- Oxfam in Armenia
- Oxfam in Georgia
- Biological Farming association Elkana – Georgia

The pilot study was designed to achieve three specific goals:

1. Testing of the survey instrument
2. Testing of the content of email
3. Improvement of the survey instructions

Shortcomings revealed in the pilot determined final changes in the survey instrument, according to which structure of the email was modified in all three languages: Georgian, Armenian and English.

5.3. Fieldwork in Armenia

Fieldwork activities in Armenia began at the beginning of January, 2016 and were completed on the 15th of February, 2016. It should be noted that fieldworks in Georgia started two weeks prior to those in Armenia. Total of 65 organizations were contacted, 28 of which happened to have previously dealt with food safety issues, as well as completely filled in the questionnaire (response rate = 43%):

Table #3

Responses	Armenia
Total number of organizations asked to respond:	65
Alliance members:	15
Alliance non-members:	50
Total number of responses (From those associated with FS issues):	28 (43%)
Alliance members:	10
Alliance non-members:	18

Full respondent list for Armenia can be viewed in the Table #4. 4 out of 28 surveyed organizations in Armenia refused to disclose their identities in the publications. Accordingly, their names do not appear in the presentation and are numbered accordingly (NGO1, NGO2, etc.). Organizations are sorted in alphabetical order using an Acronym:

Table #4

Organization	Acronym
Armavir Development Center	ADC
Association of Dried Fruit Producers	ADFP
"ARMENIAN FISH-FARMERS UNION" NGO	AFFU
Armenian National Agrarian University	ANAU
Advanced Public Research Group	APR
Armenian Women for Health and Healthy Environment	AWHHE
Armenian Young Women's Association	AYWA
Biosophia NGO	Biosophia
Scientific Center for Vegetable and Industrial Crops, Biotechlab	BioTechLab
Business Support Center	BSC
Development Principles NGO	DP

Green Lane	GL
Helsinki Citizen's Assembly	HCA
Horizon Foundation	Horizon
ICARE (International Centre For Agribusiness Research and education)	ICARE
Lori Development Center	LDC
Martuni Women's Community Council Armenia	MWCCA
OXFAM Armenia	Oxfam
OxYGen	OxYGen
Protection of Consumer Rights	PCR
ProMedia Gender	ProMedia
Union of canned food and juices producers of Armenia	UCF&JP
United Methodist Committee on Relief	UMCOR
VISTAA Expert Center	VISTAA

5.4. Fieldwork in Georgia

Fieldwork activities in Georgia began in the second half of December, 2015 and were completed on the 15th of February, 2016. Total of 80 organizations were contacted, 34 of which happened to have previously dealt with food safety issues, as well as completely filled in the questionnaire (response rate = 43%):

Table #5

Responses	Armenia
Total number of organizations asked to respond:	80
Alliance members:	21
Alliance non-members:	59
Total number of responses (From those associated with FS issues):	34 (43%)
Alliance members:	16
Alliance non-members:	18

Full respondent list for Georgia can be viewed in the Table #6. 6 out of 34 surveyed organizations in Georgia requested that their identity not be disclosed in the findings. Accordingly, their names do not appear in the presentation and are numbered accordingly (NGO1, NGO2, etc.). Organizations are sorted in alphabetical order using an Acronym:

Table #6

Organization	Acronym
Association of Business Consulting Organizations	ABCO
Registered Union of Agricultural and Environmental Association	AEA
Akaki Tsereteli State University Agrarian Faculty	ATSU-AF
BRIDGE - Innovation and Development	BRIDGE
CENN-Caucasus Environmental NGO Network	CENN
Center for Training and Consultancy	CTC
Georgian Export Development Association	EDA1
Biological Farming Association Elkana	Elkana
Eurasia Partnership Foundation	EPF
Food and Agriculture Organization of the United Nations	FAO
Green Alternative	GA
Georgian Economists Association	GEA1
Georgian Farmers' Association	GFA
Georgian Institute of Public Affairs	GIPA
Greens Movement of Georgia/Friends of the Earth-Georgia	GMG-FEG
Green Earth	GE
Heifer International Georgia	HPI
Consortium Legal Aid Georgia	LAG
Mercy Corps	Mercy Corps
NANoGE	NANoGE
Oxfam Georgia	Oxfam
People in Need	PIN
Rural and Agricultural Policy Development Institute	RAPDI
Rural Communities' Development Agency	RCDA
Association Rural Development for Future Georgia	RDFG
Swiss Agency for Development and Cooperation/Swiss Cooperation Office in Georgia	SDC/SCO
Ecological Farmers Association of Georgia	SEMA
Women in Europe for a Common Future	WECF

6. Key findings and recommendations

6.1. GEORGIA

Currently, the food security and nutrition related network in Georgia is in the ongoing process of successful formation. Although the network density is not particularly high (Information sharing = 0,017; Joint Advocacy = 0,020; Formal relation = 0,019), basic connections have already been formed. One of the primary factors leading to the low indicator of density is due to not all actors within the network participating in the survey - only 34 out of 130 were surveyed. Core central actors establish diverse links among each other as well as with the other members of the network, both on formal and informal levels. As an alliance, GAARD maintains a significant position within the network. As a result of all the above mentioned, the formulation of the main finding can be offered below:

Majority part of the network connections in Georgia is self-composed, however the next stage of development encompasses cementing of the established ties and transitioning to a further level of advancement. GAARD successfully performs the function of a binding structure and based on the accumulated experience is ready to cope with difficulties on an organizational level. Established links allows for a conclusion that the network will be able to promptly respond to initiatives raised by the state and international communities as well as contribute to the development of FSN. However, the developed structure and resources of the network require application.

Following main **conclusions can be drawn** based on the network analysis:

- State organizations that are directly related to FSN issues by mandate are active members of the network: **Minister of Agriculture (MOA), National Food Agency (FSA)** and **the Agricultural Cooperative Development Agency (ACDA)**. The level of their engagement in information sharing and joint advocacy is very high. The above-mentioned organizations are still represented in formal relations segment, but to a lesser extent. This is an important finding as it shows the high commitment to the issue which Oxfam is advocating from the side of policy makers. Engagement of government is crucial for successful advocacy efforts as it transforms the advocacy targets into advocacy allies.
- **FAO** is an active player within the FSN network; its role and strong connections can be particularly well observed in relation to state institutions. FAO has fewer connections with the GAARD, and FAO represent the resource in itself for GAARD as it can open up a number of opportunities for joint advocacy with policy makers due to FAO's close relationships with the MoA and its agencies.
- Centrality analysis revealed the **7 most influential organizations**. The following organizations were clustered together in the first group of centrality in at least two cases in the course of the centrality analysis relating to information sharing, joint advocacy or formal relations:

Type	Name
State	MOA, FSA
Non-State	FAO
Alliance (GAARD)	Oxfam, Mercy Corps, Elkana, NGO1

- The role of **RCDA** is revealed to be substantial in formal relations, since it performs the function of a bridge between the two large groups, thus the role RCDA can play in GAARD and sustainable exit of Oxfam is to be monitored closely.
- **EPF** creates a distinctly independent group. Preferred network analysis showed that the FSN network is actively requesting the establishment of relations with EPF. Considering the fact that EPF is actively working in the food safety related issues, the emerging cooperation between GAARD and EPF can

bring common grounds for successful advocacy efforts, which will be beneficial both for food safety and food security.

- **WECF** and **UNWOMEN** are found to be major actors in the direction of gender issues. Their involvement within the FSN network is scarce. However, the network would benefit from their further integration, as GAARD does not have current contacts with any gender related NGOs.

- Interesting observations have been made regarding **Oxfam**'s formal relations. Analysis revealed that a large part of Oxfam's formal relations is executed within the GAARD alliance. The analysis also indicated that Oxfam's efforts are justified, since the network considers GAARD as an essentially efficient structure, and a tool for the sustainability of the FSN network.

- **GIPA, NGO4, NGO5, GEA1** and **SEMA** are noteworthy organizations as they do not represent central actors within the FSN network at this stage, however they are equipped with the potential to strengthen the network and their future integration would only benefit the network. Network cluster analysis showed that they form prominent alternative independent groups. **GFA** is revealed to be an important organization by having accumulated considerable amount of contacts, as well as being requested by other organizations.

- Two state organizations made the list of requested organizations: **MOH** and **MES**. Greater engagement of MOH would substantially benefit the network in the direction of nutrition.

The following general **recommendations** can be issued on the basis of network analysis, for the sustainable and consistent development of the FSN network (detailed recommendations in regards to Oxfam's exit strategy are presented within the report as well as in the last chapter of this report[1]):

- GAARD members should develop/improve connections with **FAO**.
- Integration of independent groups is important for further development of the FSN network, including: **EPF, GIPA, NGO4, NGO5, GEA1** and **SEMA**. Furthermore, **GFA's** potential should be applied more adequately.
- FSN network will benefit by further integration of organizations working on gender issues, including: **WECF** and **UNWOMEN**. It should be noted that, WECF has expressed willingness to cooperate with GAARD members.
- As stated in the findings above, **RCDA** serves the function of a bridge between the two large groups on the level of formal relations. Network analysis does not allow deeper and qualitative examination of the RCDA case. The role of this organization as well as the enhancement of its network contacts should be determined as a result of additional analysis.
- Preferred network analysis (Virtual Network) revealed for two state organization (**MOH** and **MES**) that their integration will provide additional value to the FSN network.

6.2. ARMENIA

Food security and nutrition related network in Armenia has a different structure compared to Georgia. The network consists of several major actors that create distinctly independent groups on their own. Specific character of the network can be explained by a combination of organizations working on qualitatively different activities within the AA. The Network Density is not generally high (Information sharing = 0,011; Joint Advocacy = 0,013; Formal relation = 0,019) and displays even lower indicators regarding information sharing and joint advocacy than Georgia. Density in terms of formal relations is similar for both countries. One of the primary factors leading to low indicator of density is due to not all actors within the network participating in the survey - only 28 out of 137 were surveyed.

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[1] The recommendations for the exit strategy, as well as the next steps for the usage of the current report have been developed together with the FS Project MEAL Coordinator

Although AA members independently demonstrate strength/centralization regarding FSN issues, AA is not their basic tool for relations. In order to achieve shared objectives, the alliance and independent network members need to develop a more direct means of cooperation with each other. High polarization level increases the risk of duplicated work. Dependence on particular subject(s) is high in the event of polarization.

Following **conclusions can be drawn** based on the network analysis:

- From state organizations, the **MOA** is the most engaged institution within the FSN network, however preferred network analysis showed that more direct intense relations with MOA is highly requested by the network organizations.
- **FAO** represents one of the most actively requested organization, as it is very scarcely represented in the existing network and further development of its role would significantly benefit the network.
- Centrality analysis revealed the **9 most influential organizations**. The following organizations were clustered together in the first and second groups of centrality in at least two cases in the course of the centrality analysis relating to information sharing, joint advocacy or formal relations:

Type	Name
State	MOA
Non-State	GL, AWHHE
Alliance (AA)	Oxfam, Horizon, BSC, ICARE, UNDP, ProMedia

- Unlike Georgia, gender-based organizations are actively represented in the Armenian **AA** and in the FSN network in general.
- **ProMedia** and **ICARE** establish two distinctly independent groups, which is explained by the fact that these two organizations are working on distinct operational sectors - ProMedia is focusing on gender related issues, while ICARE works as social-economic development think tank focusing on agricultural development.
- Interesting observations were made within the analysis of **Oxfam**'s three types of relations. The analysis revealed that Oxfam also creates an independent group which does not represent the largest group but has sufficient connections with other groups in order to be a central actor.
- **PCR, RASC, SCVIC** and **Biosophia** are noteworthy organizations as they do not represent first level actors within the FSN network at this stage, however they are equipped with the potential to strengthen the network and their future integration would only benefit the network. Network cluster analysis showed that they form prominent alternative independent groups in the direction of information sharing, and members of which have minimal interactions with one another.
- Three state organizations made the list of requested organizations (**MOA, MOE** and **MESTD**) as well as two NGOs (**FAO, Shen**), that are not members of the alliance. Conduction of qualitative analysis as to why the above listed organizations are demanded by the FSN network is necessary.

The following general **recommendations** can be issued on the basis of network analysis, for the sustainable and consistent development of the FSN network (detailed recommendations in regards to Oxfam's exit strategy are presented within the report as well as in the last chapter of this report):

- A certain number of the **AA** members unquestioningly represent central actors within the network; however their polarization creates additional risks that need to be balanced out. The qualitative analysis revealed primary cause of polarization: central players represented in the alliance conduct essentially contrasting activities, while each in turn has an active connection to an organizational unit working on similar issues or activities, which ultimately leads to the formation of clusters. It is recommended to

enhance the linkages with sub-clusters within the AA in order to make sure that the polarization does not fragment the network after Oxfam project is finished.

- Alliance member organizations that form distinctly independent subgroups are united within the alliance around a common goal and/or through the influence of the coordinating organization (Oxfam). In order to transition to the next stage of development (establishment of reliable, solid and sustainable connections), FSN network members are required to find overlapping interest areas, in the course of which coordinating organization should perform its previously assumed functions until the aforementioned connections are formed naturally

- ProMedia, ICARE and Horizon (together with Oxfam) are those members of AA which have the biggest number of linkages outside AA, thus they are the key organizations for bringing the scale of connections for AA in terms of information sharing.

- It is important to increase state organizations' engagement within the FSN network. It was revealed by the preferred network analysis as well.

- Integration of those non-governmental organizations requested by the FSN network is highly important. "Shen" is a particularly special organization among the requested NGOs, since it is not represented as an important figure within the network, but is most highly requested by the members of the network for the development of further relations. The case of the organization Shen requires qualitative study in order to ascertain the reason why it is not part of the FSN network

7. Outcomes of the Network Analysis

Data analysis was prepared using the Social Network Analysis Software - NetMiner. Organizational networks of both countries were analyzed in three primary directions:

- Information Sharing
- Joint Advocacy
- Formal relations - Memorandum of Understanding or Contract-based

The general structure of each above listed directions was studied, determining the central actors, as consequently revealing homogeneous clusters. Central actors assembled under the umbrella of influence groups. The data was analyzed according to type of the organization and Alliance membership.

In the attempt to determine central organizations, the following tests were applied for each category of networks:

- Degree Centrality
- Closeness Centrality
- Node Betweenness Centrality
- Random-walk Betweenness Centrality
- Eigenvector Centrality
- Information Centrality
- Power Centrality
- Effect Centrality

Clauset-Newman-Moore algorithm was utilized for the cluster analysis. Analysis encompasses two independent subchapters for Armenia and Georgia, respectively.

7.1. GEORGIA

7.1.1. Information Sharing

Data and the respective visualization in regards with information sharing are represented in the following four different aspects:

- General Network Structure
- Position of GAARD within the network
- Central Actors of the Network
- Analysis of independent subgroups (Cluster analysis)

7.1.1.1. General Network Structure

Respondents
State
Other

The surveyed respondents are displayed in green on Map # 5 - 34 units, in total. Three major non-alliance member actors are represented in blue: MOA, FSA and ACDA

DENSITY: 0.017
NODES: 130   **LINKS:** 290
DEGREE CENTRALIZATION INDEX:
17.0% (IN), 22.5% (OUT)

Map #5 – Information sharing, Network structure
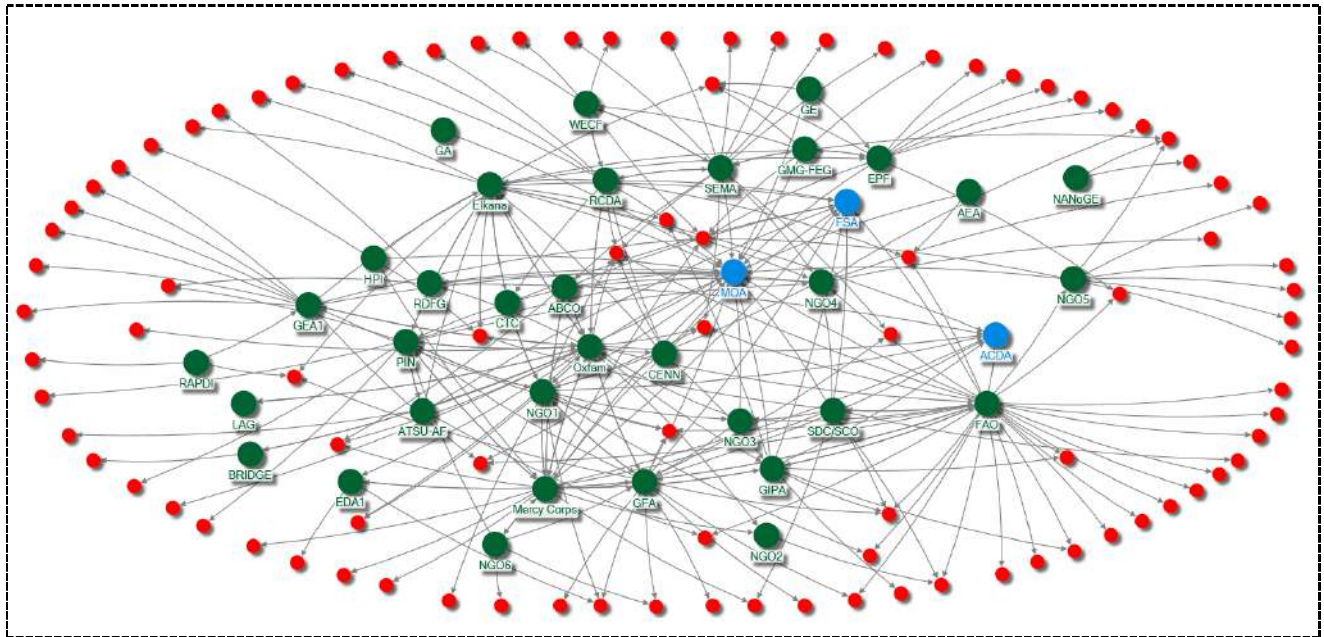
MOA - Ministry of Agriculture
**FSA** - Food Safety Agency
ACDA - Agricultural Cooperatives Development Agency

7.1.1.2. General Network Structure in respect with GAARD

- 🟢 GAARD
- 🔵 State
- 🔵 Non-State
- 🟢 Ind. Experts

The number of GAARD member organizations equals 21, out of which 16 organizations were surveyed. Only two organizations out of the mentioned 16 refused to reveal their identities in the analytical report. Network interrelating organizations based on information sharing is allocated into 4 groups: State, non-state, GAARD member, and independent experts (Map # 6 and # 7)

Map #6 – Information sharing, Network structure, GAARD
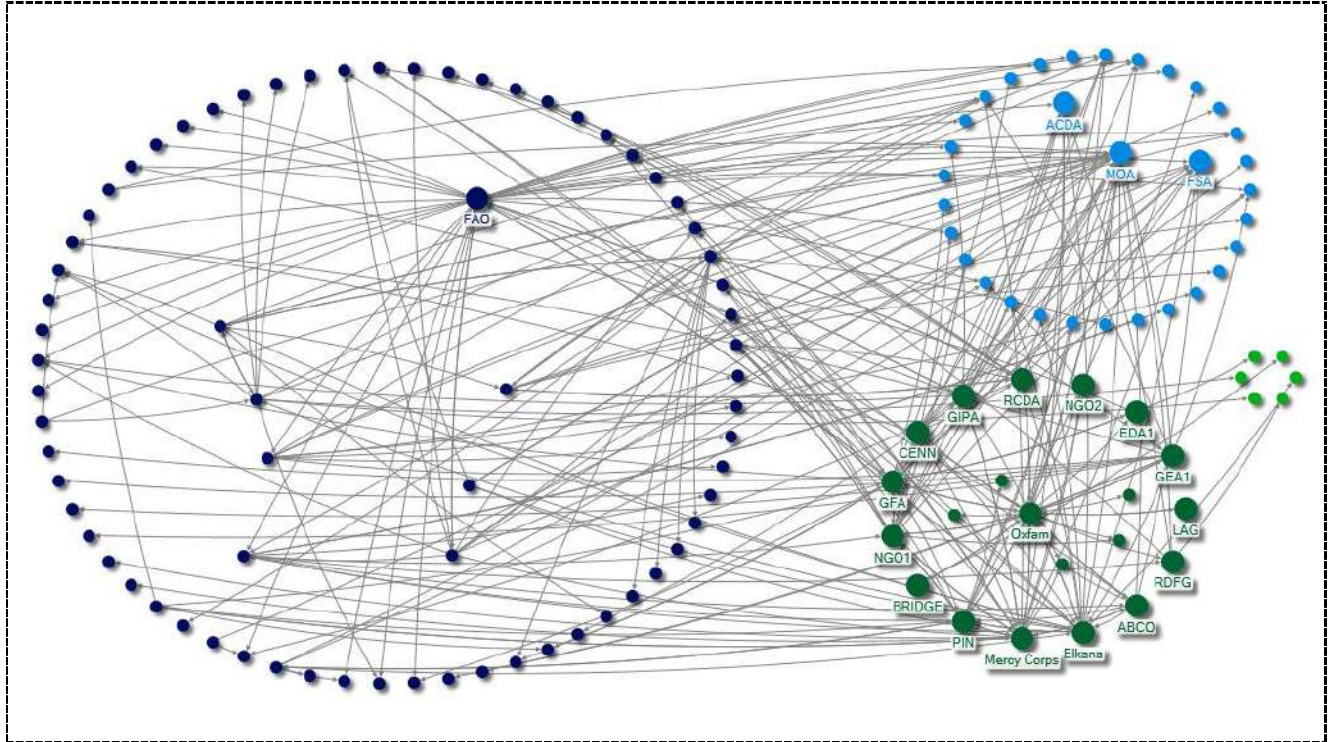
Map #7 – Information sharing, Network structure, GAARD
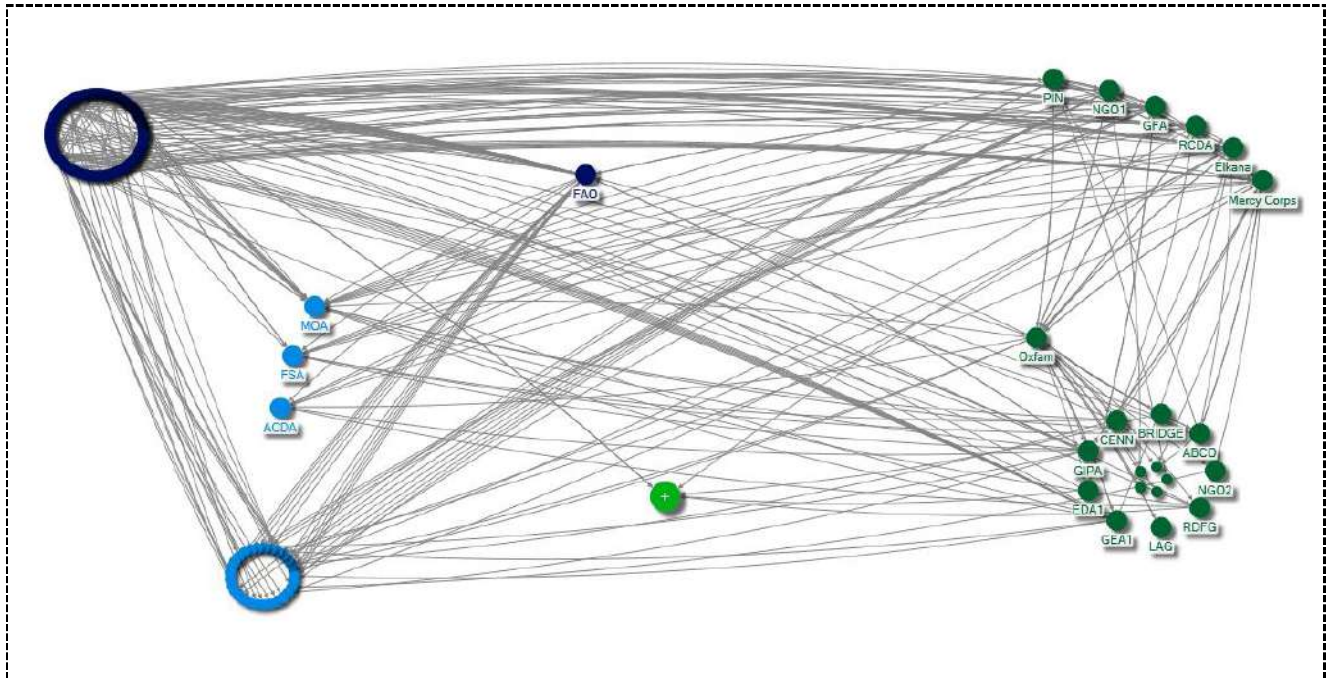
7.1.1.3.Central Actors

8 types of analysis techniques were utilized in order to determine central organizations (See table # 7). 4 influential groups were revealed as a result of their collation (25 organizations in total). Sequence of the organizations connote to their status, consequently number 1 being the most highly influential group, number 2 less influential, and so on.

Map #8 represents organizations color coded according to their type. As depicted on the map, the first level group is balanced, comprising of 2 Alliance member organizations, 2 state organizations and 1 international NGO. Similar circumstances can be observed in all other groups. 11 out of the 25 central actors are members of the alliance, 6 are state organizations, and the remaining 8 represent other local or international NGOs. Intensity of the interrelations among central organizations is relatively high, as well as their links with other members of the network.

Map #8 – Information sharing, Central Actors
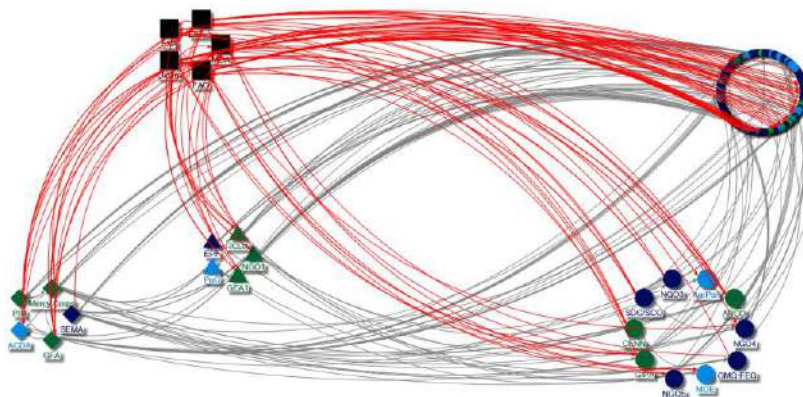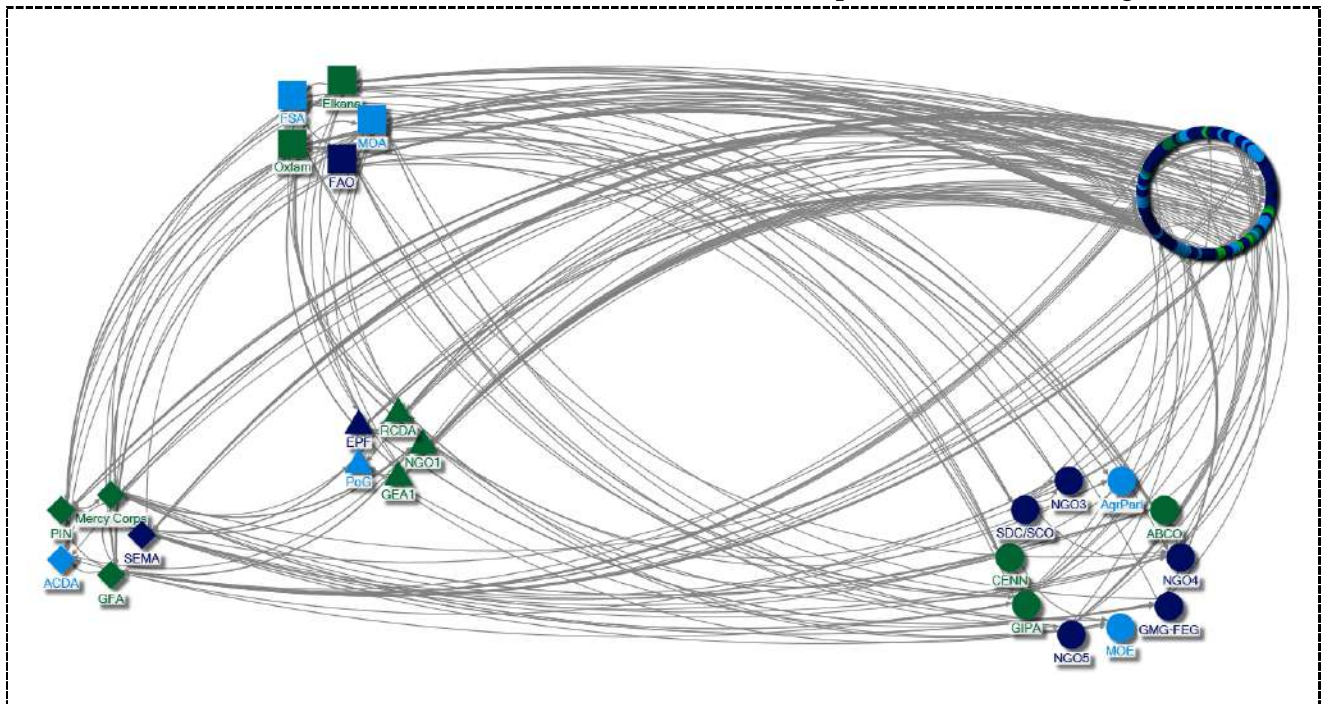
Map #9:
Intensity of **N1** Central Group member interrelations are represented via red arrows

Table #7

| NODE	Group	In-Degree	Out-Degree	In-Closeness	Out-Closeness	Node Betw.	R.W. Betw.	Eigenvector	Information
MOA	1	0,186	0,000	0,198	0,000	0,000	0,249	0,332	1,193
FAO	1	0,039	0,240	0,091	0,347	0,041	0,329	0,273	1,189
Oxfam	1	**0,085**	**0,186**	**0,123**	**0,452**	**0,093**	**0,223**	**0,329**	**1,182**
Elkana	1	0,078	0,109	0,115	0,355	0,043	0,209	0,242	1,172
FSA	1	0,085	0,000	0,119	0,000	0,000	0,082	0,188	1,117
Mercy Corps	2	0,078	0,124	0,109	0,350	0,024	0,169	0,261	1,161
GFA	2	0,047	0,147	0,094	0,387	0,024	0,195	0,249	1,159
PIN	2	0,062	0,085	0,111	0,356	0,019	0,131	0,203	1,117
SEMA	2	0,023	0,116	0,069	0,315	0,015	0,178	0,114	1,094
ACDA	2	0,062	0,000	0,116	0,000	0,000	0,063	0,171	1,077
NGO1	3	0,047	0,116	0,101	0,348	0,015	0,126	0,218	1,144
RCDA	3	0,031	0,093	0,090	0,365	0,027	0,134	0,158	1,105
GEA1	3	0,016	0,093	0,081	0,342	0,017	0,163	0,109	1,051
EPF	3	0,023	0,078	0,082	0,234	0,019	0,138	0,081	1,029
PoG	3	0,047	0,000	0,110	0,000	0,000	0,104	0,060	1,015
GIPA	4	0,031	0,078	0,090	0,311	0,007	0,098	0,181	1,104
SDC/SCO	4	0,008	0,085	0,064	0,317	0,002	0,096	0,144	1,092
ABCO	4	0,031	0,054	0,099	0,341	0,007	0,073	0,175	1,091
CENN	4	0,008	0,062	0,080	0,334	0,000	0,068	0,173	1,090
NGO4	4	0,039	0,047	0,101	0,274	0,008	0,116	0,139	1,083
GMG–FEG	4	0,016	0,070	0,063	0,300	0,017	0,129	0,087	1,056
NGO3	4	0,016	0,031	0,072	0,348	0,003	0,049	0,143	1,031
MOE	4	0,047	0,000	0,105	0,000	0,000	0,058	0,117	1,029
AgrParl	4	0,031	0,000	0,100	0,000	0,000	0,047	0,087	0,947
NGO5	4	0,008	0,062	0,068	0,062	0,009	0,134	0,066	0,934

7.1.1.4. Clustering (sub-groups)

Network cluster analysis revealed interesting outcomes, as a result of which 8 different groups were allocated. The majority of the central organizations clustered under 4 out of the 8 groups. It should be noted, that Oxfam and Elkana ended up in separate groups. 7 out of 9 Oxfam sub-group members are GAARD alliance members. The mentioned sub-group represents the largest cluster, which demonstrates that the Alliance is a unified structure, and plays a significant role within the network. Simultaneously, the structures of the remaining 4 relatively smaller clusters revealed to be just as fascinating, each of which were assigned one central actor and represented its own individual network. Map #11 shows that the yellow highlighted cluster is independent and does not have connections with any of the organizations from the largest cluster.

Map #10 – Information sharing, Clusters
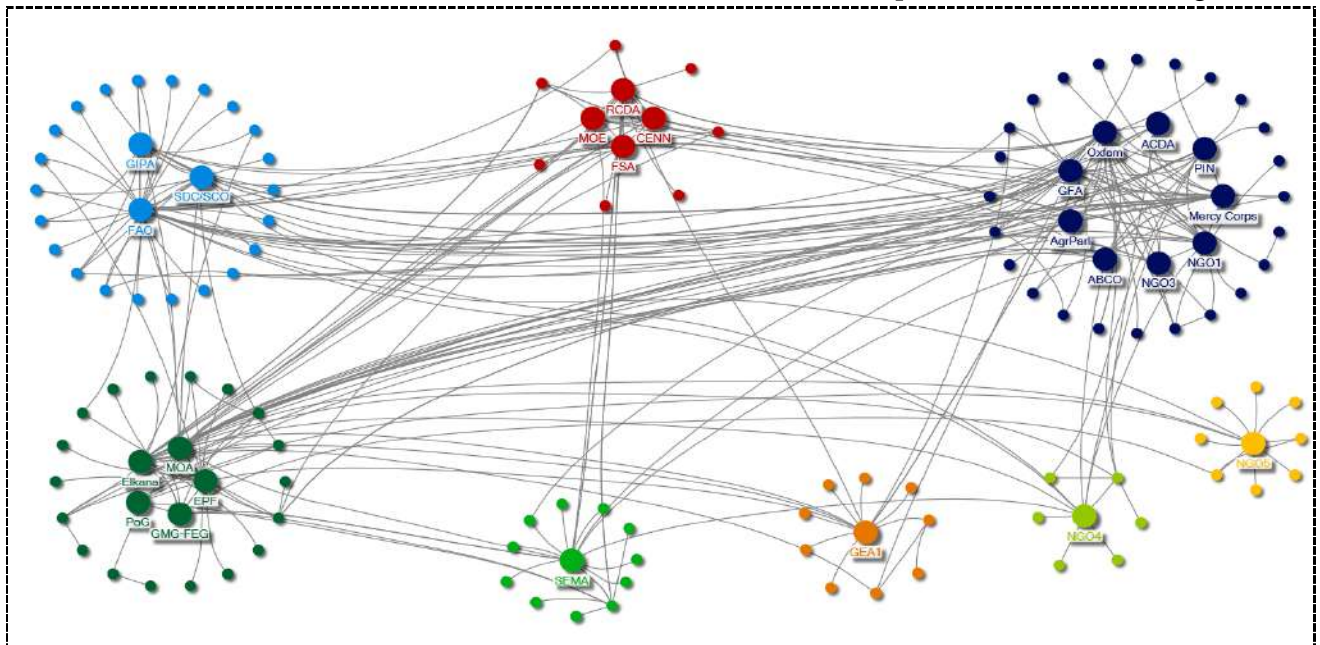
Map #11 – Information sharing, Clusters

28
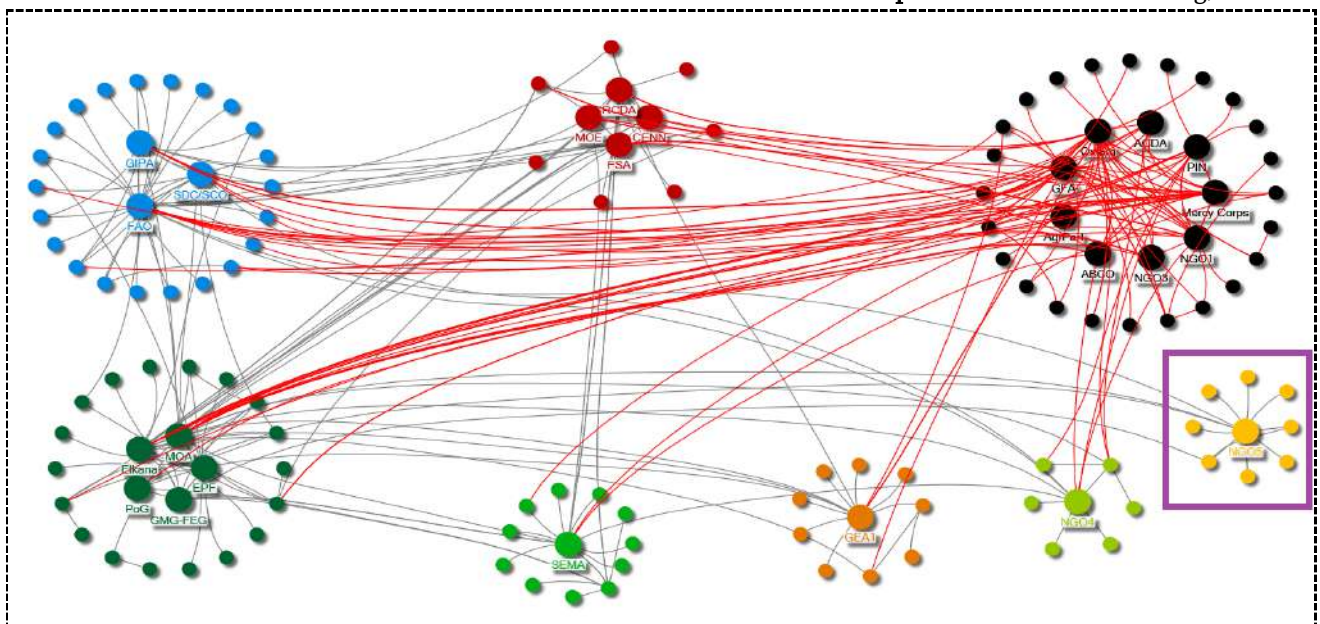
Key sustainability conclusions and recommendations for Oxfam's exit strategy:

1. Oxfam, Mercy Corps, Elkana, PiN and NGO1 are the most central organizations in the alliance (Table 7). GFA is also another strong organization which is providing the linkage to some of the clusters which are not connected to GAARD (for example the cluster of SEMA and GEA1, Map 10). While Oxfam's main focus is the sharing of information with GAARD, these organizations link GAARD to larger network (Map 6). Therefore, when developing the GAARD sustainability strategy, the closer focus should be on the above mentioned organizations in order to make sure their resources are properly utilized in future as well and they do not turn into non-active members.

2. In terms of information sharing, there are number of sub-groups / clusters, which have weak linkage to GAARD, these represent as mentioned above SEMA, GEA1, NGO4 and NGO5 (see Maps 10 and 11), the closer analysis of the role of these organizations reveal the following:
   a. SEMA is connected to GAARD only through ABCO and RCDA. Loosing these bridges with SEMA will result in losing the connection with the cluster of 11 organizations. Moreover, SEMA is also linked to another important cluster of NGO4 (which is an important organization within the FS issue and its resources would benefit the advocacy efforts of GAARD). Oxfam should either start linkage of SEMA more towards GAARD or guarantee the bridging role of ABCO and RCDA.
   b. GEA1 has linkage with Oxfam and Elkana, thus Oxfam should make sure it is more incorporated with other members of GAARD, and keep Elkana as the guarantee for this cooperation.
   c. NGO4 is linked through PiN, ABCO, NGO1 and Elkana, there are no contacts with Oxfam or any other organizations with GAARD. In addition to its own network, NGO4 gives the additional linkage with FAO (will be discussed in more details below), SEMA (mentioned above) and SDC. As mentioned above, it will be beneficial to bring NGO4 on board of joint advocacy on FSN related issues in Georgia.
   d. The cluster of NGO5 is the most vulnerable as it has no connections with Oxfam nor with any of the GAARD members which is explained by the fact that the GAARD is composed solely by those organizations which work in agriculture and rural development and not on nutrition related issues (NGO5 works on nutrition and mother and child healthcare issues). NGO5 represents the unique link to other organizations which are working on nutrition - both state and non-state organizations. The only link for Oxfam to NGO5 currently is maintained through FAO, and as FAO is not the member of GAARD, thus the linkage is extremely weak. Oxfam could directly connect with NGO5 and invite to GAARD, through its involvement as one of the sub-working group under GAARD or maintain the connection through the FAO (thereby increasing the FAO's role in GAARD).

3. FAO is one of the most important organizations to be considered during the exit (Maps 6 and 7).
   a. FAO connects to NGO4 and NGO5 (discussed above) (Map 10), as well as links GAARD to many local and international NGOs as well as state agencies (Maps 6 and 7). It is also named as one of the most desired organizations by the respondents to be incorporated in GAARD (discussed more in below paragraph on desired network). Thus, Oxfam should activate the status of FAO in GAARD.

b. Additionally, FAO is linked to USDA and USAID (Map 5), and so far provides the only link with USAID, while USDA is also linked through GIPA. Thus, Oxfam should explore the idea of further utilizing the bridging capital of FAO as currently the GAARD does not involve any US related projects, which couldhave great potential in terms of joint advocacy, considering the US donated portfolio for agriculture and livelihoods development in Georgia.

7.1.2. Joint Advocacy

Data and the respective visualization in regards with joint advocacy are represented in the following four different aspects:

- General Network Structure
- Position of GAARD within the network
- Central Actors of the Network
- Analysis of independent subgroups (Cluster analyze)

7.1.2.1. General Network Structure

● Respondents
● State
● Other

Map #12 depicts those surveyed organizations in green color code that have had joint advocacy based relations with at least 1 other organization - 30 units in total. Three major non-alliance member actors are represented in blue color: MOA, FSA and ACDA

DENSITY: 0.020
NODES: 86   **LINKS:** 145
DEGREE CENTRALIZATION INDEX:
12.28% (IN), 25.37% (OUT)

Map #12 – Joint Advocacy, Network structure
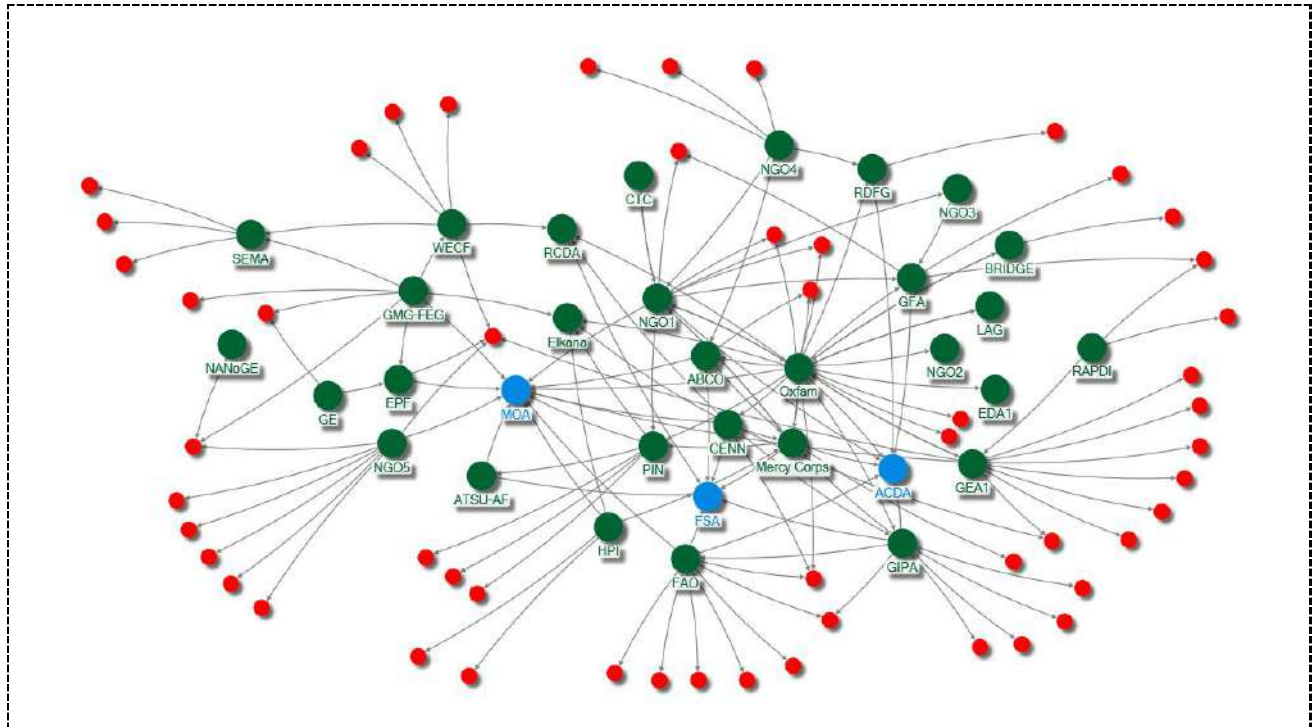
7.1.2.2.   General Network Structure in respect with GAARD

● GAARD
● State
● Non-State
● Ind. Experts

From the 21 GAARD member organizations, each surveyed organization has had joint advocacy with other organizations (16 respondents in total). Network interrelating organizations based on joint advocacy is allocated into 4 groups: State, non-state, GAARD member, and independent experts (Maps #13 and #14)

Map #13 – Joint Advocacy, Network structure, GAARD
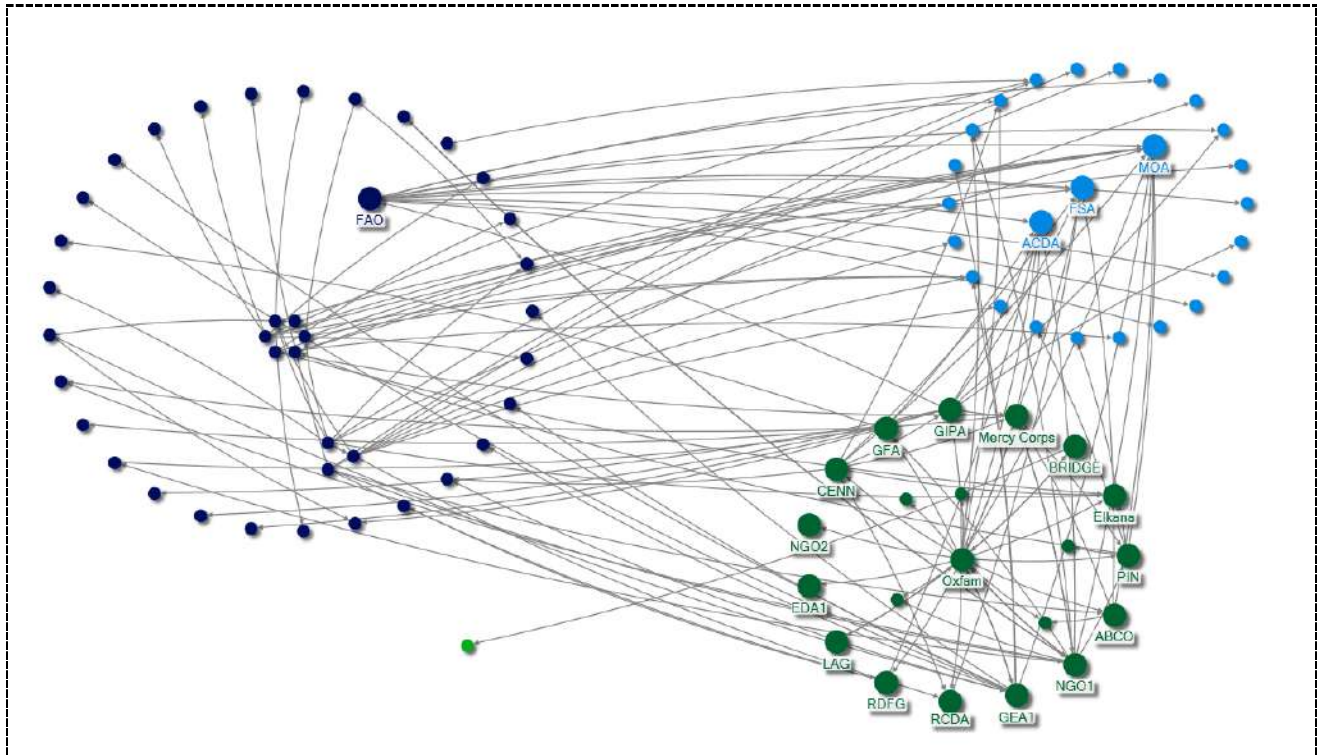
Map #14 – Joint Advocacy, Network structure, GAARD
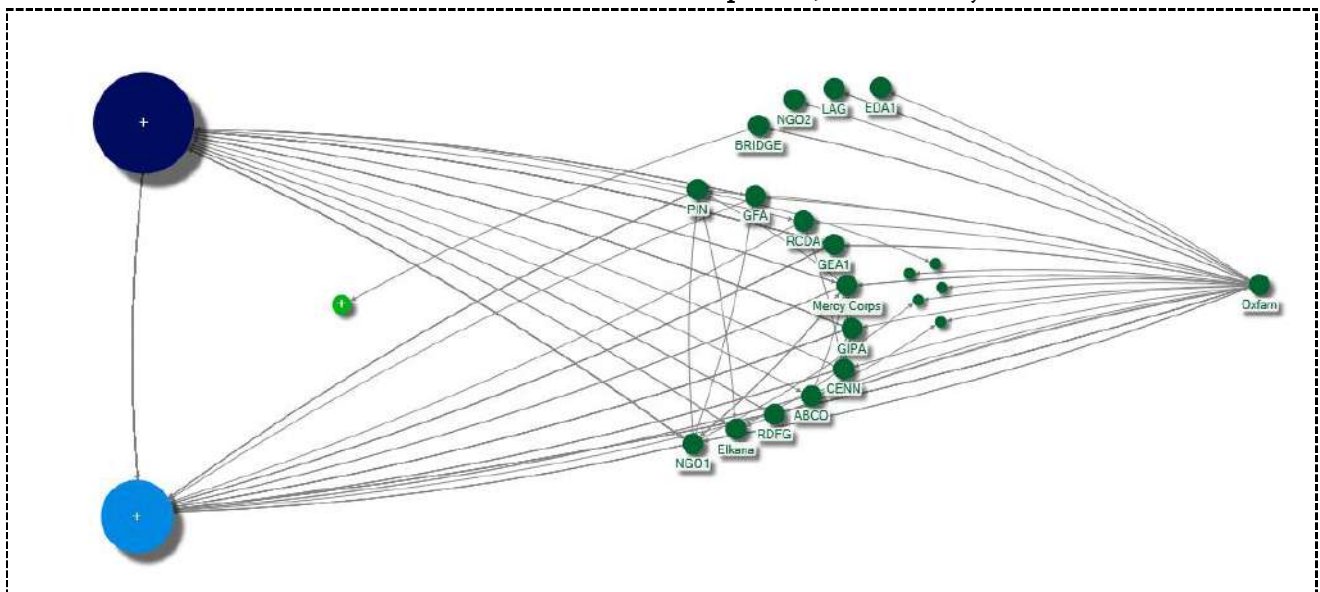
7.1.2.3. Central Actors

□ 1st Group
◇ 2nd Group
△ 3rd Group

8 types of analysis techniques were utilized in order to determine central organizations (See table # 8). 3 influential groups were revealed as a result of their collation (15 organizations in total). Sequence of the organizations connote to their status, consequently number 1 being the most highly influential group, number 2 less influential, and so on.

● GAARD
● State
● Non-State
● Ind. Experts

Map #16 represents organizations color coded according to their type. As depicted on the map, the first level group is comprised of 3 alliance member organizations and 2 state organizations. Similar circumstances can be observed in all other groups. 8 out of the 15 central actors are members of the alliance, 3 are state organizations, and the remaining 3 represent other local or international NGOs. Intensity of the interrelations among central organizations is relatively high, as well as their links with other members of the network.

Map #15 – Joint Advocacy, Central Actors
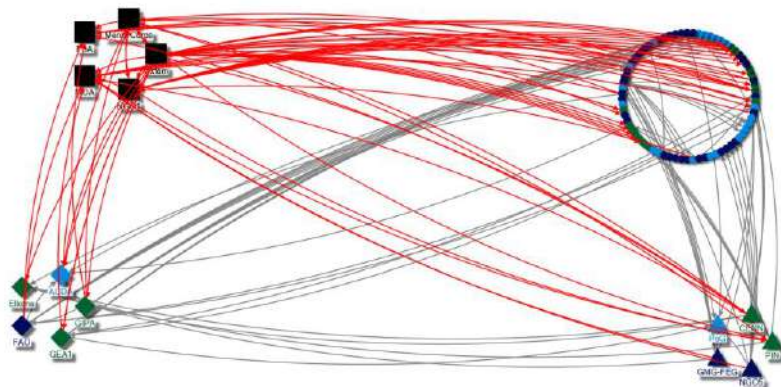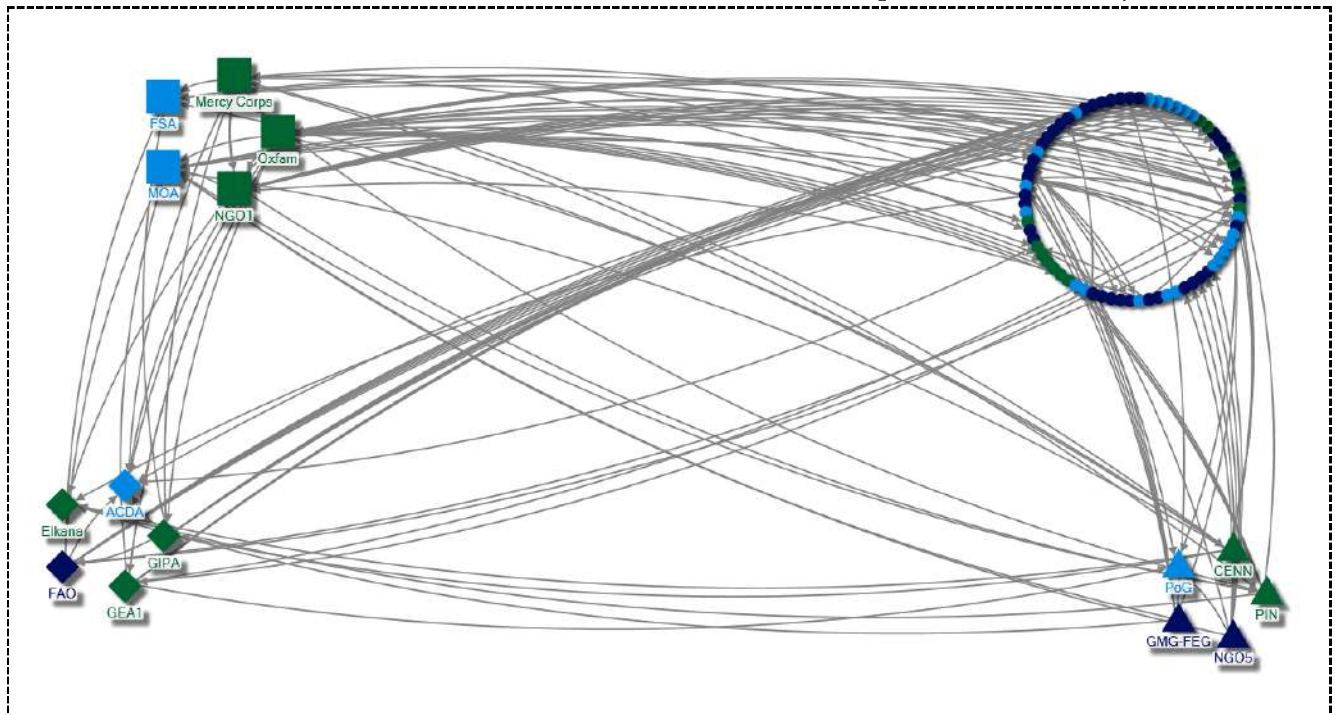
Map #16:
Intensity of **N1** Central Group member interrelations are represented via red arrows

Table #8

| NODE	Group	In-Degree	Out-Degree	In-Closeness	Out-Closeness	Node Betw.	R.W. Betw.	Eigenvector	Information
Oxfam	G1	0,059	0,271	0,089	0,387	0,064	0,416	0,462	1,017
MOA	G1	0,141	0,000	0,168	0,000	0,000	0,339	0,279	0,997
Mercy Corps	G1	0,071	0,071	0,089	0,270	0,027	0,166	0,296	0,952
NGO1	G1	0,047	0,129	0,081	0,285	0,020	0,213	0,279	0,952
FSA	G1	0,082	0,000	0,112	0,000	0,000	0,123	0,183	0,912
GIPA	G2	0,024	0,106	0,063	0,240	0,019	0,191	0,238	0,916
ACDA	G2	0,082	0,000	0,121	0,000	0,000	0,139	0,228	0,915
FAO	G2	0,012	0,118	0,050	0,118	0,009	0,203	0,163	0,893
Elkana	G2	0,059	0,000	0,088	0,000	0,000	0,129	0,151	0,875
GEA1	G2	0,024	0,118	0,061	0,276	0,019	0,263	0,128	0,873
CENN	G3	0,012	0,094	0,058	0,239	0,001	0,159	0,257	0,949
PIN	G3	0,035	0,071	0,083	0,072	0,008	0,160	0,222	0,908
GMG-FEG	G3	0,000	0,094	0,000	0,126	0,000	0,227	0,078	0,872
PoG	G3	0,047	0,000	0,079	0,000	0,000	0,153	0,036	0,802
NGO5	G3	0,000	0,094	0,000	0,094	0,000	0,189	0,049	0,751

7.1.2.4. Clustering (sub-groups)

6 groups emerged as a result of joint advocacy network cluster analysis. Similarly to the information sharing analysis outcomes, Oxfam and Elkana ended up in separate groups; with GEA1 still creating an independent group. Cluster containing Oxfam represents the largest group. As depicted on Map #18, Oxfam group has the minimal point of contact with NGO5 group.

Map #17 – Joint Advocacy, Clusters
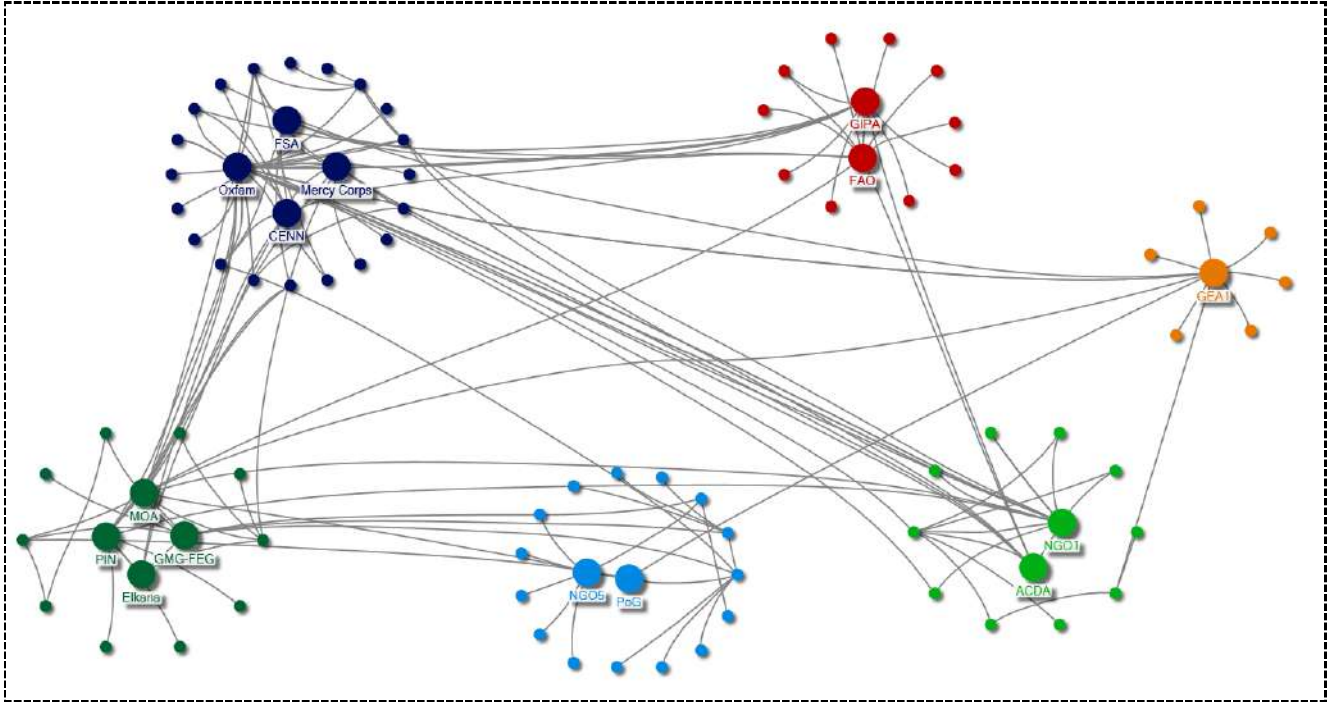
Map #18 – Joint Advocacy, Clusters
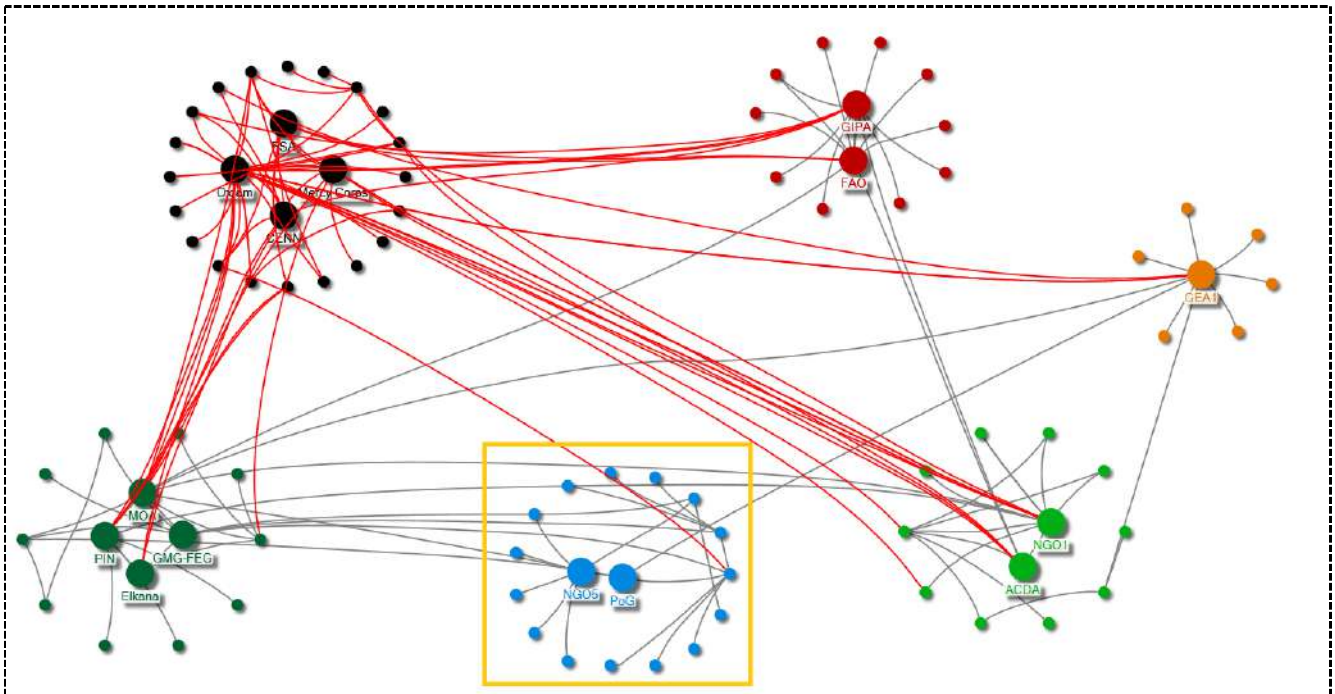
Key sustainability conclusions and recommendations for Oxfam's exit strategy:

1. The central organizations which remain central in the case of joint advocacy as well in GAARD except Oxfam, are Mercy Corps, NGO1, Elkana, GEA1 and GIPA (Table 8). In terms of joint advocacy activities some organizations and their role should be especially highlighted for the exit strategy:
   a. GEA1 brings in number of organizations which are linked to GAARD only though GEA1 and the main type of these organizations is research and academic institutions, which considering the fact that GAARD aims to engage in policy monitoring and oversight in the future can be an important resource (Map 12). As the main link of GEA1 for GAARD is Oxfam, the project should make sure the linkage is maintained. GEA1 is also connected with RAPDI, thus the inclusion of RAPDI and activation of its role within GAARD would guarantee the connections with GEA1 and to its network in the longer term.
   b. GIPA is another interesting organization in terms of joint advocacy as it is linking to the organizations outside GAARD, some of which as mentioned above are USDA and USAID, thus its role to bring in the USAID projects' voices in the alliance should be assessed and utilized (Map 17).
   c. The importance of the FAO remains the same as in the case of information sharing, which is another confirmation for activating FAO within GAARD (Map 13).
   d. As in case of information sharing, NGO5 has its distinct group for joint advocacy which is not connected to GAARD. Thus the need for initiating the linkage with NGO5 and GAARD is essential in this regard for Oxfam (Map 18).
   e. As mentioned above, NGO1 is also one of the central members in terms of joint advocacy, and its role is also important as it is linked with NGO4 together with ABCO and RDFG. Thus Oxfam should assess the roles of these organizations and develop a path for linking with NGO4 (Map 12).

2. The linkage with MoA in terms of joint advocacy except Oxfam is also maintained by NGO1, ABCO, GEA1, PiN, CENN, FAO, HPI, ATSU-AF, EPF, and GMG-FEG. Out of these organizations, some have already been discussed above; in terms of other organizations, the following should be highlighted (Map 12):
   a. ABCO also provides linkage with FSA, which Oxfam does not have currently, however as it is maintained by other members of GAARD as well. Oxfam does not have to put extra resources in it (Mercy Corps, CENN and RCDA are also linked with FSA); As mentioned above, ABCO is one of the links to NGO4 and that is where its capital can be assessed most.
   b. PiN is mostly concentrated within GAARD but it also links to a number of local governance offices, thus its resources can be further utilized for grass-root connections.
   c. The importance of the FAO should be highlighted here as well, as it connects to all three main state agencies: MoA, FSA and ACDA, thus its engagement not only provides extra linkages for various non state organizations but at the same time gives the possibility to diffuse the advocacy efforts with various state organizations simultaneously.
   d. Other important organizations are EPF and GMG-FEG as they link GAARD to a number of clusters (such as to WECF (gender NGO, link also maintained towards RCDA) and SEMA. EPF is one of the most active organizations working in the sector of food safety currently in Georgia. Considering the linkages with food safety and food security, the linkage between

GAARD and EPF would benefit both issues as unified efforts with the advocacy targets can be key to successful advocacy.
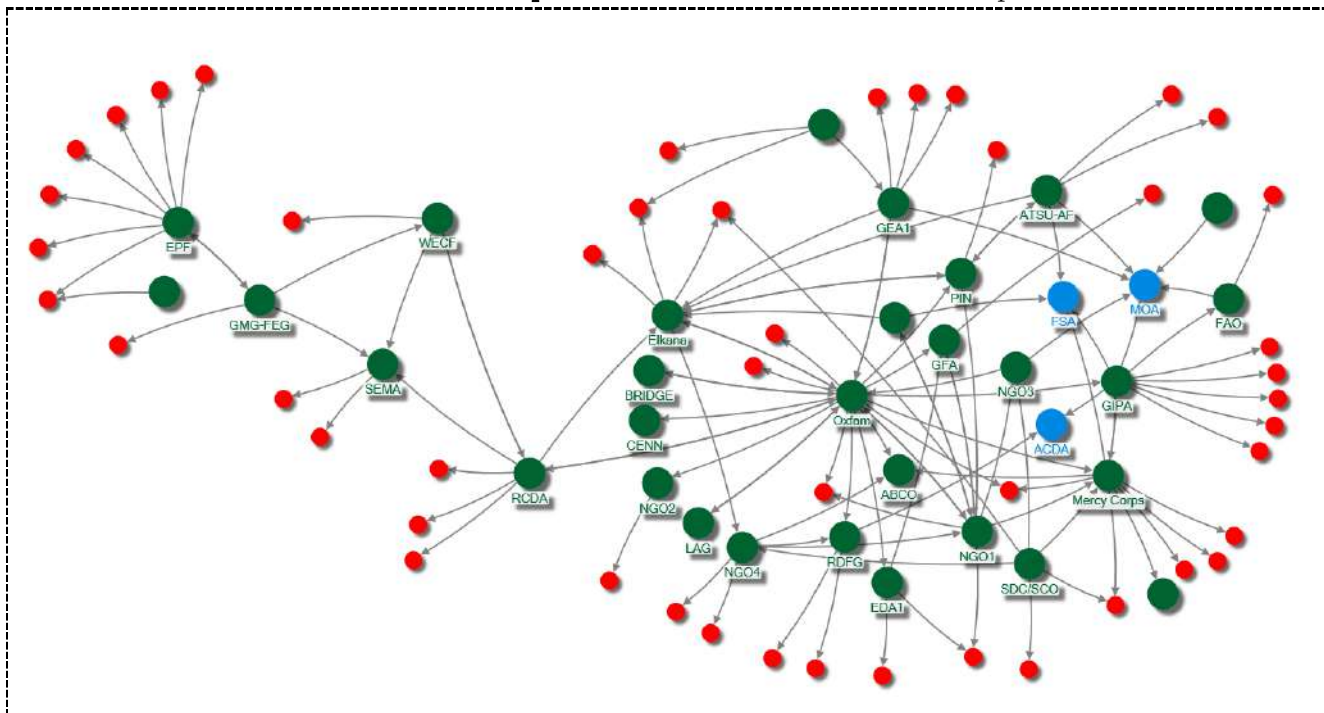
7.1.3. Formal Relations

Data and the respective visualization in regards with formal relations are represented in the following four different aspects:

- General Network Structure
- Position of GAARD within the network
- Central Actors of the Network
- Analysis of independent subgroups (Cluster analysis)

7.1.3.1. General Network Structure

● Respondents
● State
● Other

Map #12 depicts those surveyed organizations in green color code that have had formal relations with at least 1 other organization – 31 units in total. 2 among them were isolated from the rest of the network, and are not represented on the map. Three major non-alliance member actors are represented in blue color: MOA, FSA and ACDA

DENSITY: 0.019
NODES: 82   **LINKS:** 126
DEGREE CENTRALIZATION INDEX:
6.83% (IN), 21.83% (OUT)

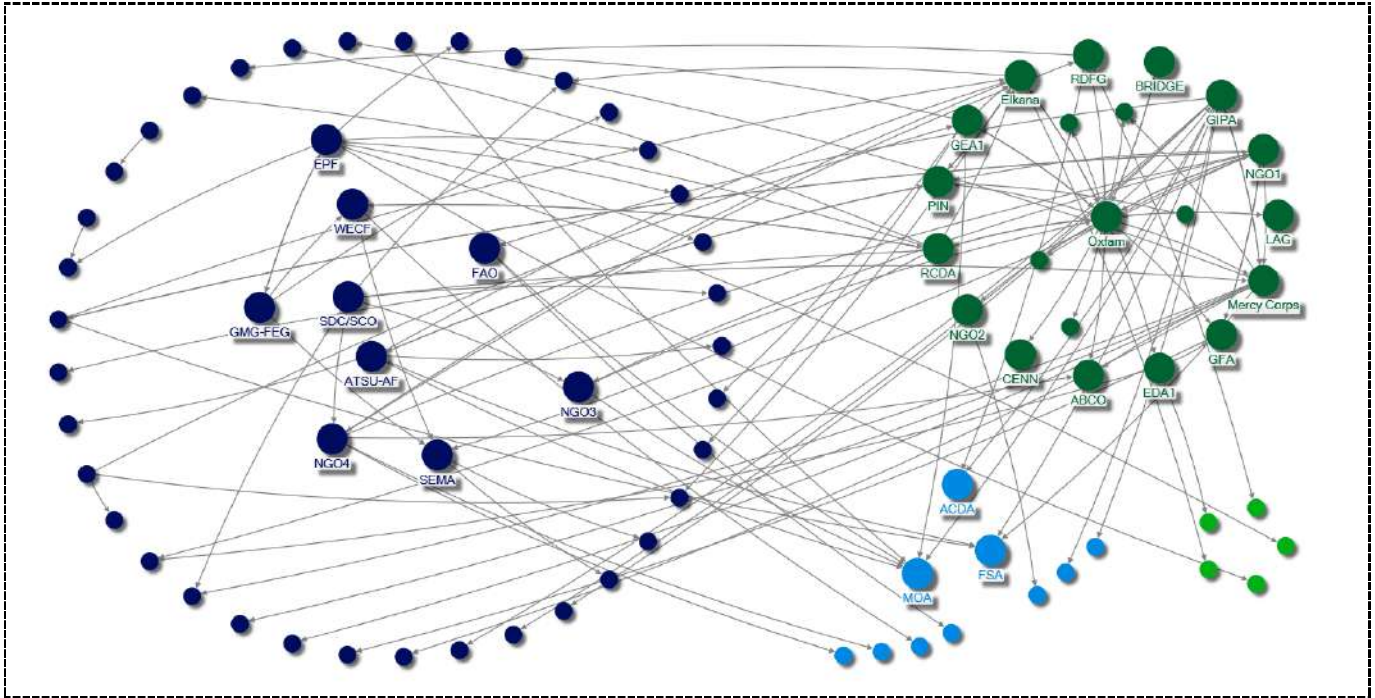**Map #19** – Memorandum/Contract based cooperation, Network structure

7.1.3.2. General Network Structure in respect with GAARD

From the 21 GAARD member organizations, each surveyed organization has had a formal relationship with other organizations (16 respondents in total). Network interrelating organizations based on formal relations is allocated into 4 groups: State, non-state, GAARD member, and independent experts (Maps #19 and #20)

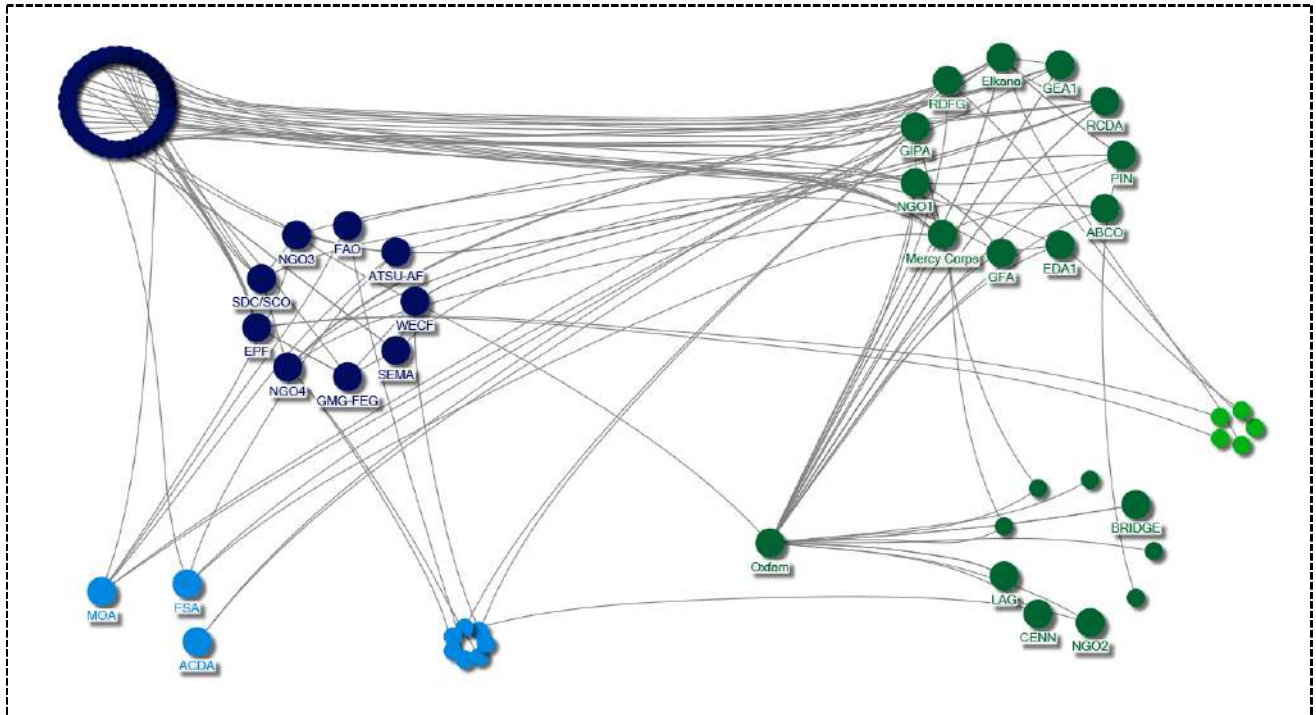**Map #20** – Memorandum/Contract based cooperation, Network structure, GAARD

Map #21 – Memorandum/Contract based cooperation, Network structure, GAARD
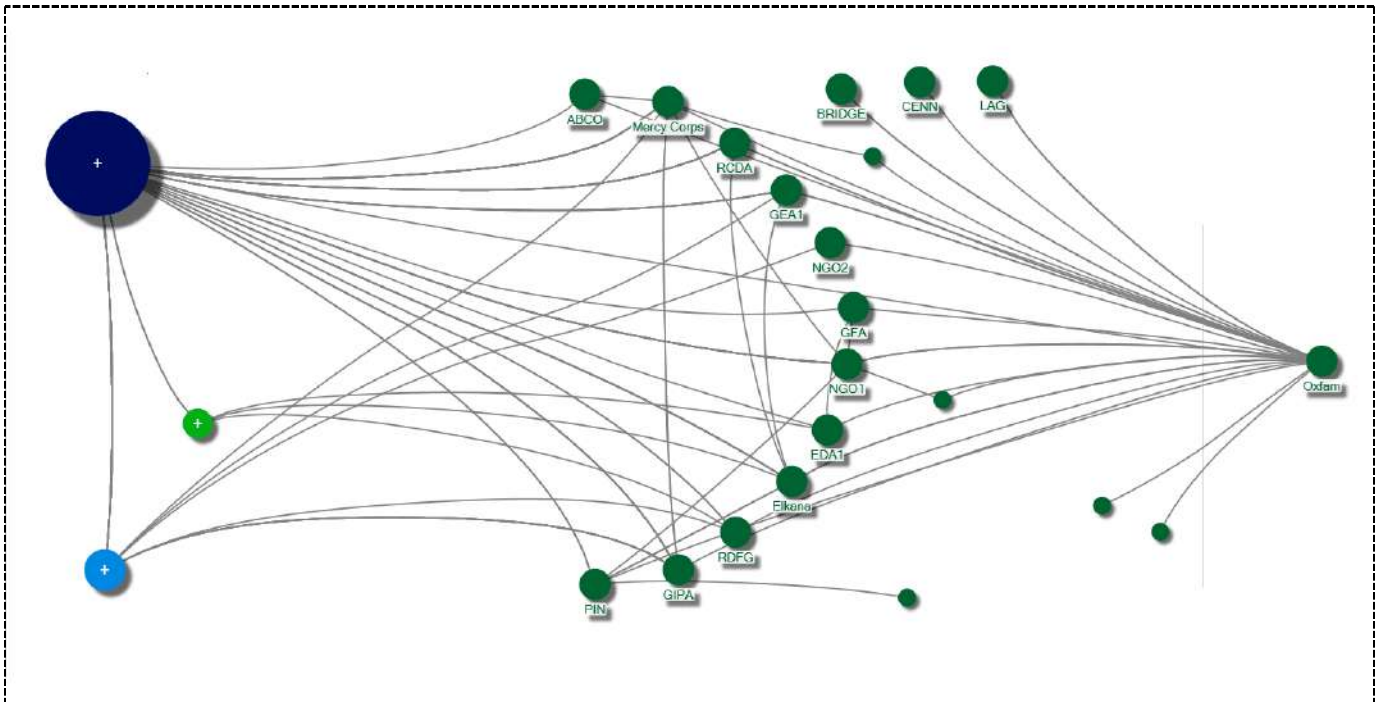
Formal relationship based network can be represented from a different standpoint, as interrelations among all four sectors are clearly evident (Map # 22). Map #20 displays connections of Oxfam in red color code; it has only one connection outside of the alliance. Furthermore, it can be assumed that less active members of the Alliance have interrelations in regards with food security mostly within the alliance.

Map #22A – Memorandum/Contract based cooperation, Network structure, GAARD

Map #22B – Memorandum/Contract based cooperation, Network structure, GAARD
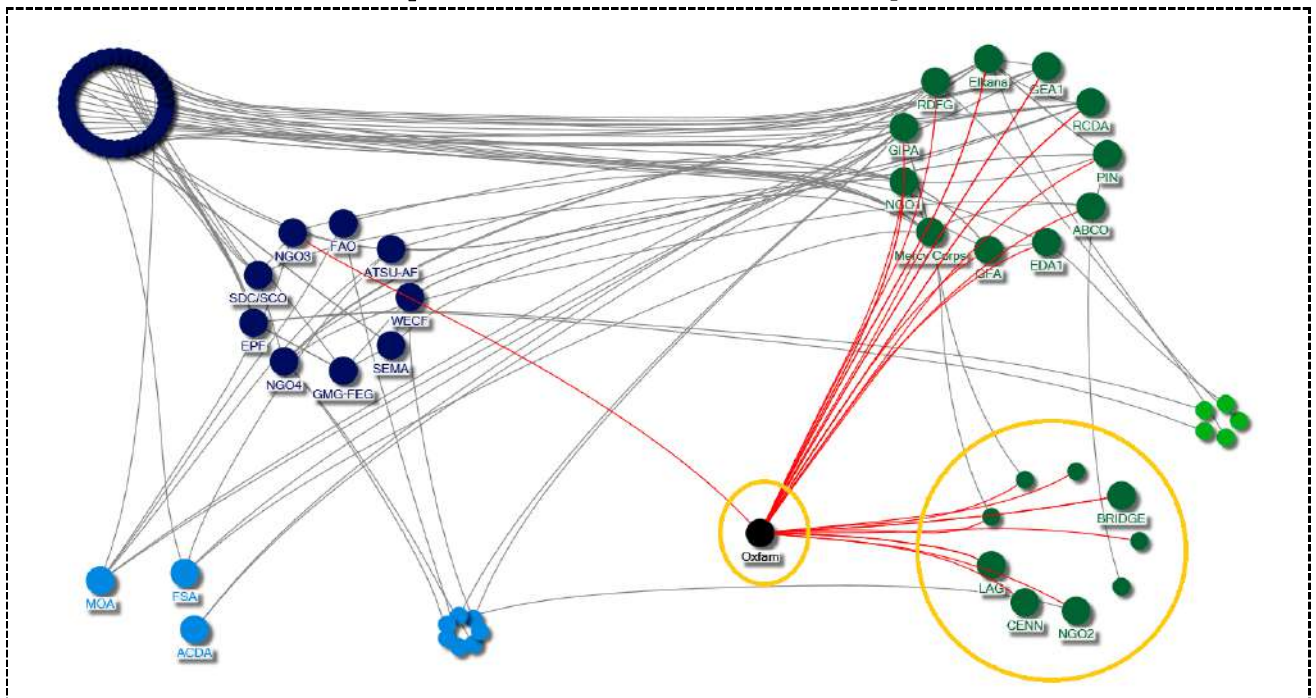
7.1.3.3. Central Actors

□ 1st Group
◇ 2nd Group
△ 3rd Group

8 types of analysis techniques were utilized in order to determine central organizations (See table # 9). 3 influential groups were revealed as a result of their collation (20 organizations in total). Sequence of the organizations connote to their status, consequently number 1 being the most highly influential group, number 2 less influential, and so on.

● GAARD
● State
● Non-State
● Ind. Experts

Map #23 represents organizations color coded according to their type. As depicted on the map, the first level group is comprised of 3 Alliance member organizations and 2 state organizations. Similar circumstances can be observed in all other groups. 8 out of the 15 central actors are members of the alliance, 3 are state organizations, and the remaining 3 represent other local or international NGOs. Intensity of the interrelations among central organizations is relatively high, as well as their links with other members of the network.

Map #23 – Memorandum/Contract based cooperation, Central Actors
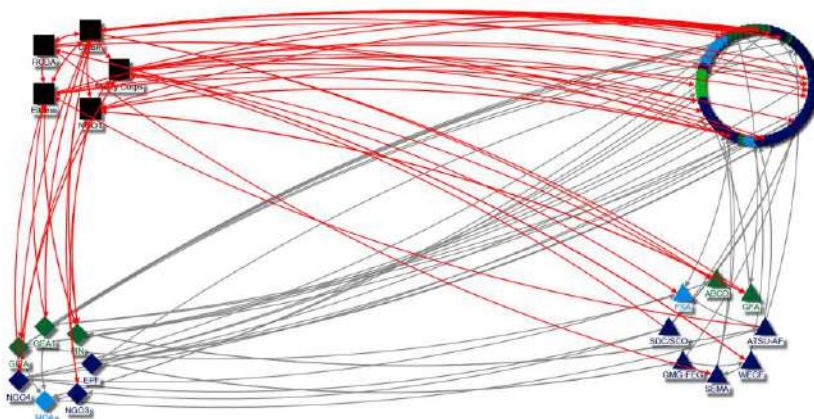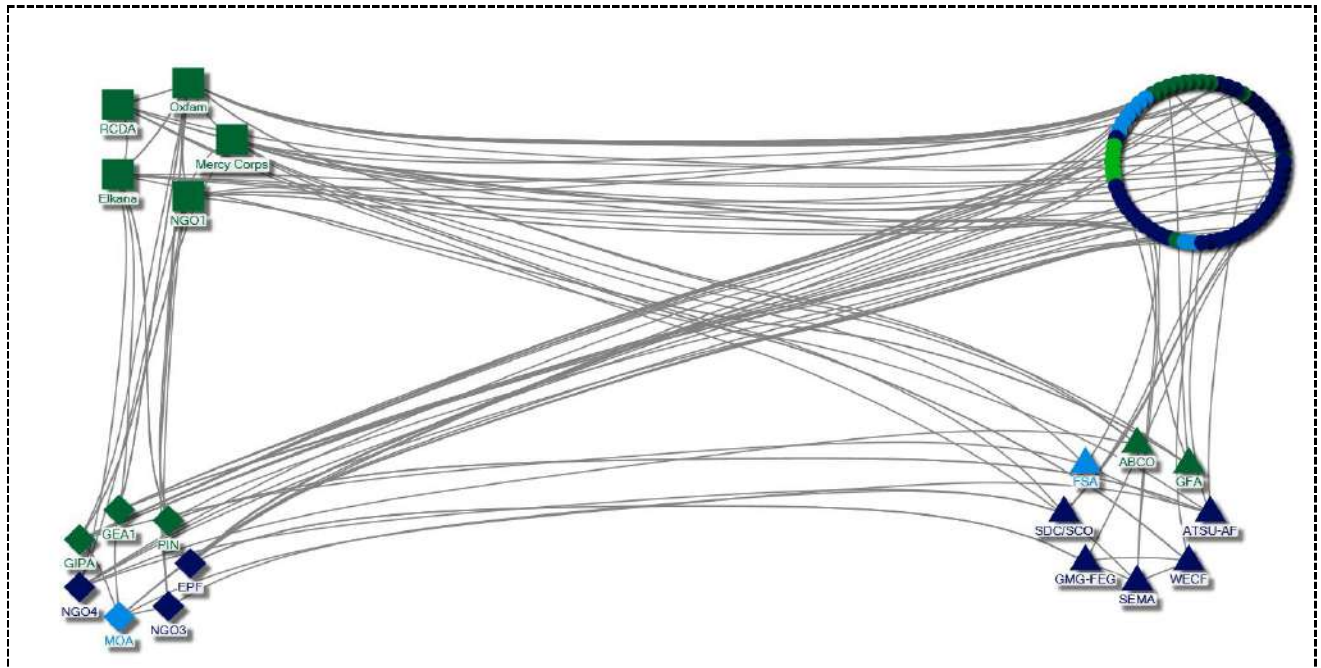
Map #24:
Intensity of **N1** Central Group member interrelations are represented via red arrows

Table #9

| NODE	Group	In-Degree	Out-Degree	In-Closeness	Out-Closeness	Node Betw.	R.W. Betw.	Eigenvector	Information
NGO1	G1	0,049	0,099	0,098	0,316	0,038	0,218	0,299	0,701
Elkana	G1	0,074	0,074	0,105	0,306	0,036	0,364	0,259	0,718
Mercy Corps	G1	0,049	0,111	0,107	0,143	0,022	0,260	0,304	0,698
Oxfam	G1	0,086	0,235	0,121	0,426	0,120	0,574	0,510	0,749
RCDA	G1	0,025	0,086	0,091	0,318	0,045	0,434	0,149	0,642
EPF	G2	0,012	0,099	0,012	0,190	0,001	0,216	0,002	0,334
GEA1	G2	0,025	0,074	0,083	0,302	0,018	0,201	0,166	0,639
GIPA	G2	0,025	0,123	0,095	0,154	0,025	0,273	0,223	0,675
NGO3	G2	0,025	0,025	0,073	0,282	0,006	0,122	0,175	0,641
MOA	G2	0,074	0,000	0,113	0,000	0,000	0,196	0,125	0,650
PIN	G2	0,049	0,037	0,098	0,233	0,012	0,124	0,201	0,647
NGO4	G2	0,025	0,062	0,080	0,249	0,009	0,183	0,169	0,662
ABCO	G3	0,037	0,000	0,105	0,000	0,000	0,077	0,161	0,607
ATSU-AF	G3	0,012	0,074	0,069	0,237	0,006	0,152	0,123	0,638
FSA	G3	0,049	0,000	0,092	0,000	0,000	0,118	0,125	0,631
GFA	G2	0,037	0,025	0,093	0,228	0,012	0,092	0,157	0,594
GMG-FEG	G3	0,012	0,049	0,012	0,228	0,010	0,268	0,012	0,450
SDC/SCO	G3	0,000	0,074	0,000	0,267	0,000	0,145	0,132	0,640
SEMA	G3	0,037	0,025	0,077	0,025	0,006	0,212	0,033	0,505
WECF	G3	0,025	0,037	0,070	0,232	0,021	0,196	0,033	0,504

7.1.3.4. Clustering (sub-groups)

7 groups emerged as a result of the formal relation based network cluster analysis. Similarly to the previous two network cases, Oxfam and Elkana ended up in separate groups once more. EPF and GEA1 represent clearly pronounced independent groups. The cluster containing Oxfam represents the largest group. As depicted on Map #26, Oxfam group has the minimal points of contact with GEA1 and RCDA groups.

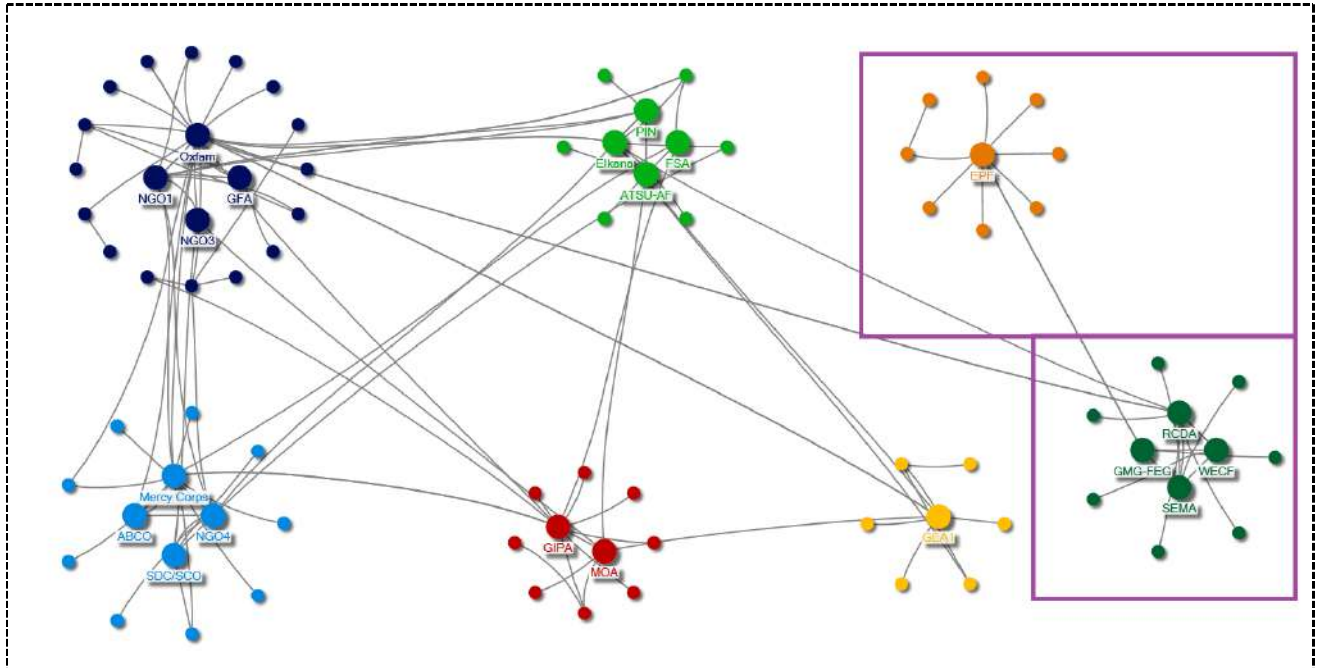**Map #25** – Memorandum/Contract based cooperation, Clusters
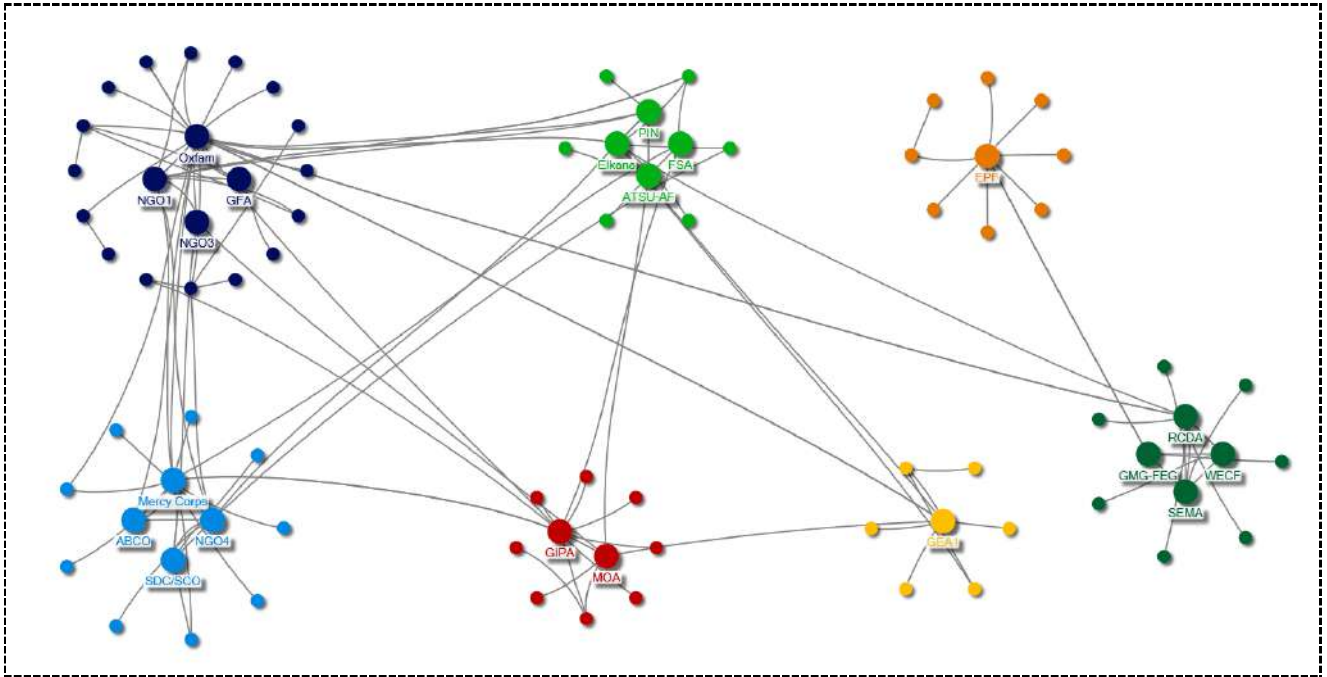
**Map #26** – Memorandum/Contract based cooperation, Clusters
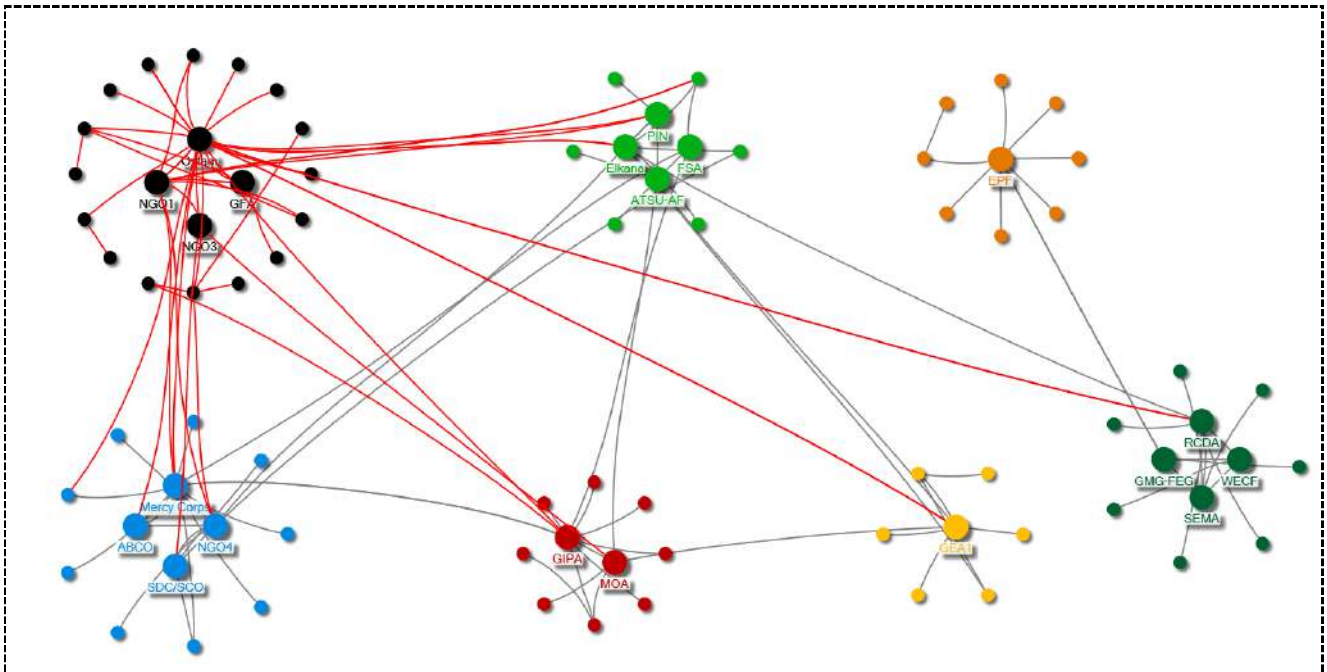
Interesting observations were revealed for the two selected groups on Map #27 (EPF and RCDA groups). EPF is an unmistakably independent group, which requires transiting through RCDA in order to establish connections with the other groups. Another defining characteristic of the represented two groups is that their members are actively working on gender issues. Map #28 clearly depicts two independent groups that have minimal points of contact with one another.

Map #27 – Memorandum/Contract based cooperation, Clusters

**Map #28** – Memorandum/Contract based cooperation
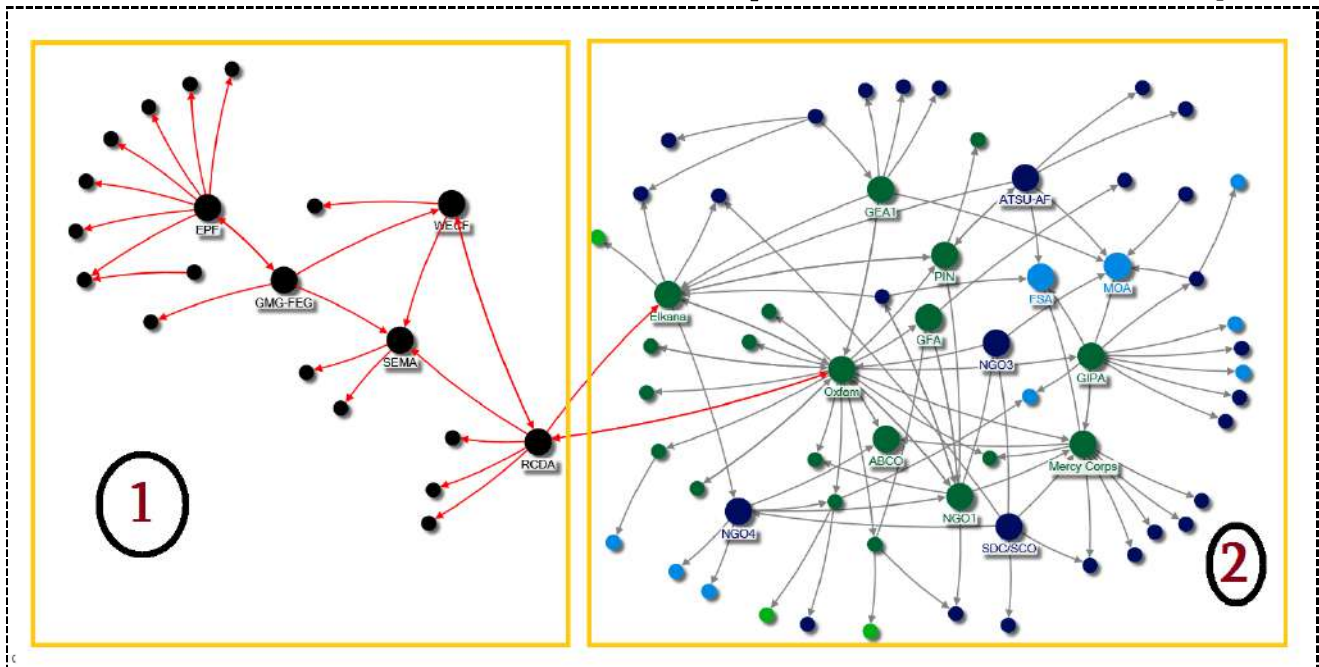
Key sustainability conclusions and recommendations for Oxfam's exit strategy:

1. The most vivid finding in terms of formal relationships is the case of RCDA which represents the only link for GAARD and Oxfam with the cluster of organizations such as SEMA, GMG and EPF mentioned above (Maps 28 and 27).
    a. Considering the fact that EPF is working very actively in food safety related issues, the potential for the linkage with GAARD should be established by Oxfam through RCDA (or as discussed above through other organizations);
    b. RCDA also has mutual linkage with WECF, which is a gender NGO and due to GAARD's gap in this respect, this can be better utilized.

7.1.4. Donors

28 out of the 34 surveyed organizations shared information regarding their three focal donors. Given that Oxfam represents a part of the European family, donors of the organizational network related to Oxfam is most frequently based in the European Union. The list of donors is presented on Table #10. Map #29 visually displays the 28 surveyed organizations and their respective donors. Donors were divided into two groups: (**D1**) Donors named by only one respondent organization, and (**D2**) donors named by more than one respondent organization. The second group is comprised of 6 donor organizations. Surveyed organizations have forthwith been divided into the following two groups: (R1) Organizations that have equal or higher amount of relations with the main 6 donors, and (R2) organizations that have more relations with the rest of the donors (28 donors in total). It should be noted that 3 out of the 28 surveyed organizations also serve in the capacity of a donor: NGO4, WECF and Oxfam.

Map #29 – Donors
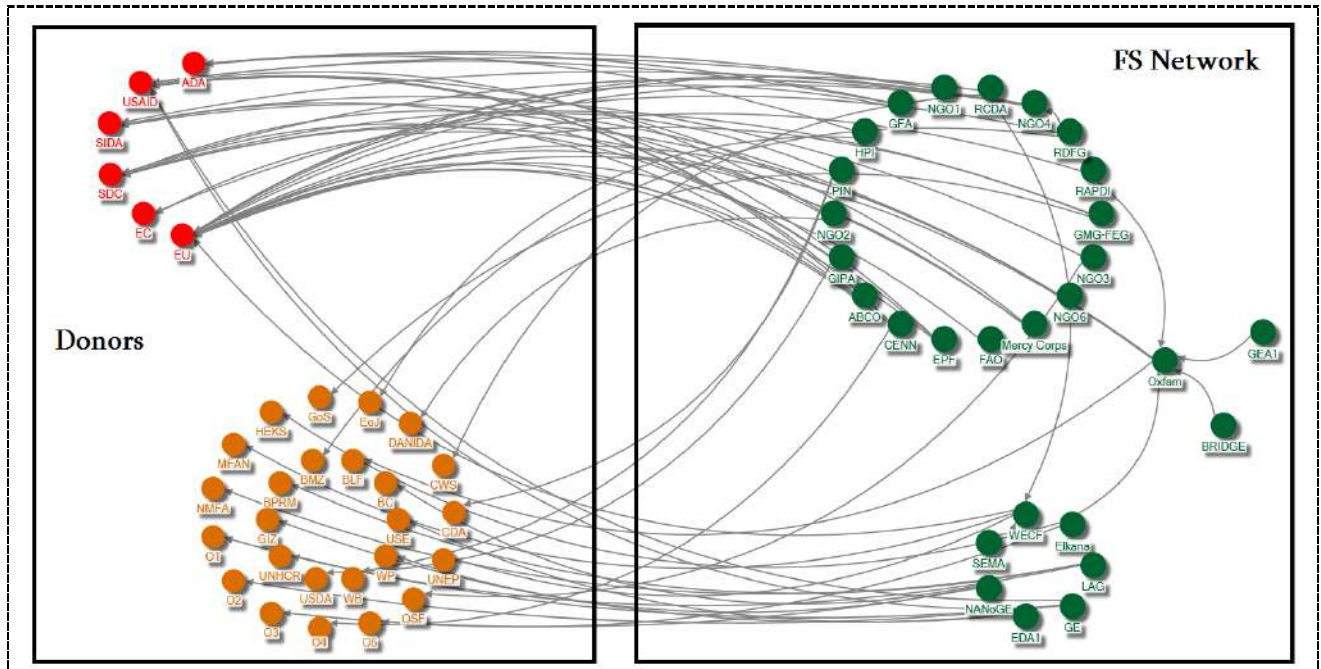
- 🟢 R1+R2 - Surveyed organizations
- 🟠 D2 - Donors named by only one respondent organization
- 🔴 D1 - Donors named by more than one respondent organization

Table #10

| Acronym	Name
EU	European Union
EC	European Commission
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
SIDA	Swedish International Development Agency
USDA	United States Department of Agriculture
USAID	U.S. Agency for International Development
WECF	Women in Europe for a Common Future
BC	Berlin-chemie
SDC	Swiss Agency for Development and Cooperation
ADA	Austrian Development Agency
NMFA	Norwegian Ministry of Foreign Affairs (NMFA)
GoS	The Government of Sweden
WP	Woerwagpharma
USE	US Embassy
UNHCR	United Nations High Commissioner for Refugees
BPRM	Bureau of Population, Refugees, and Migration
UNEP	United Nations Environment Programme
MFAN	Ministry of Foreign Affairs of the Netherlands
NGO4	NGO4
BMZ	The Federal Ministry for Economic Cooperation and Development of Germany
EoJ	The Embassy of Japan
BLF	Big Lottery Fund
DANIDA	Danish International Development Agency
OSF	Open Society Foundations -Think Tank Fund
CDA	Czech Development Agency
WB	World Bank
CWS	Church World Service
HEKS	HEKS
O1	Other1
O2	Other2
O3	Other3
O4	Other4
O5	Other5

Map #30 depicts organizational network related to the **D1** donor group. Map #31 depicts organizational network related to the **D2** donor group.
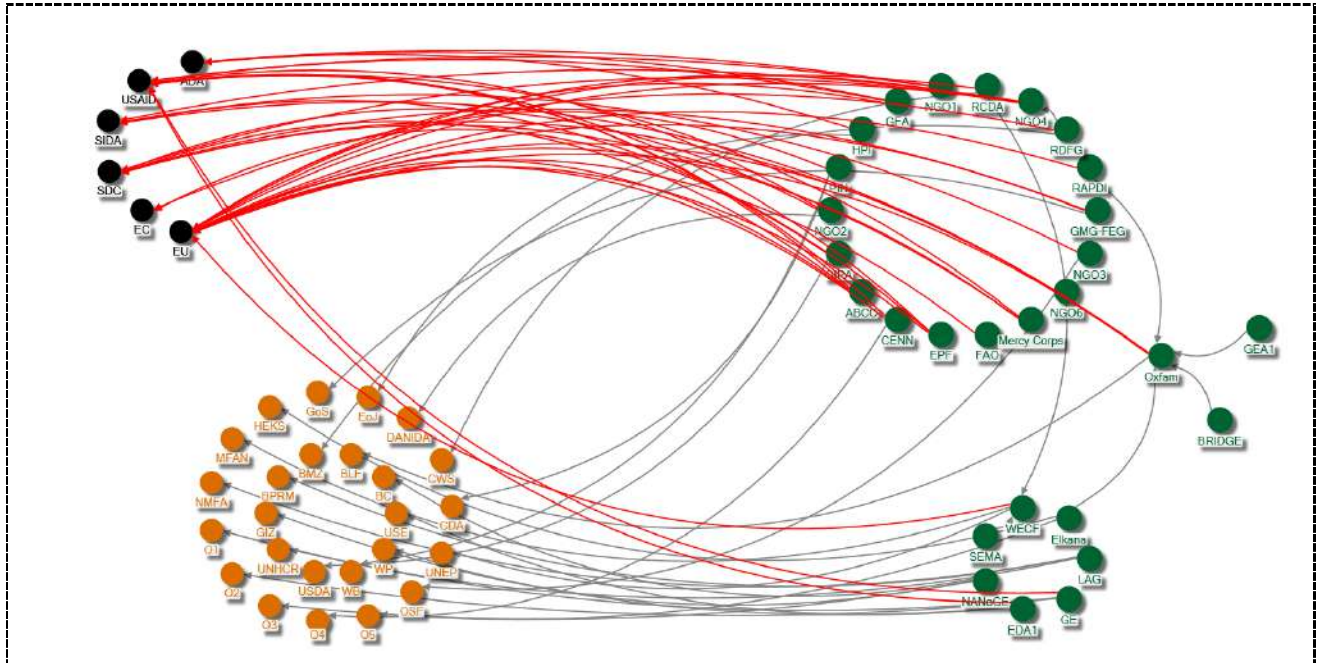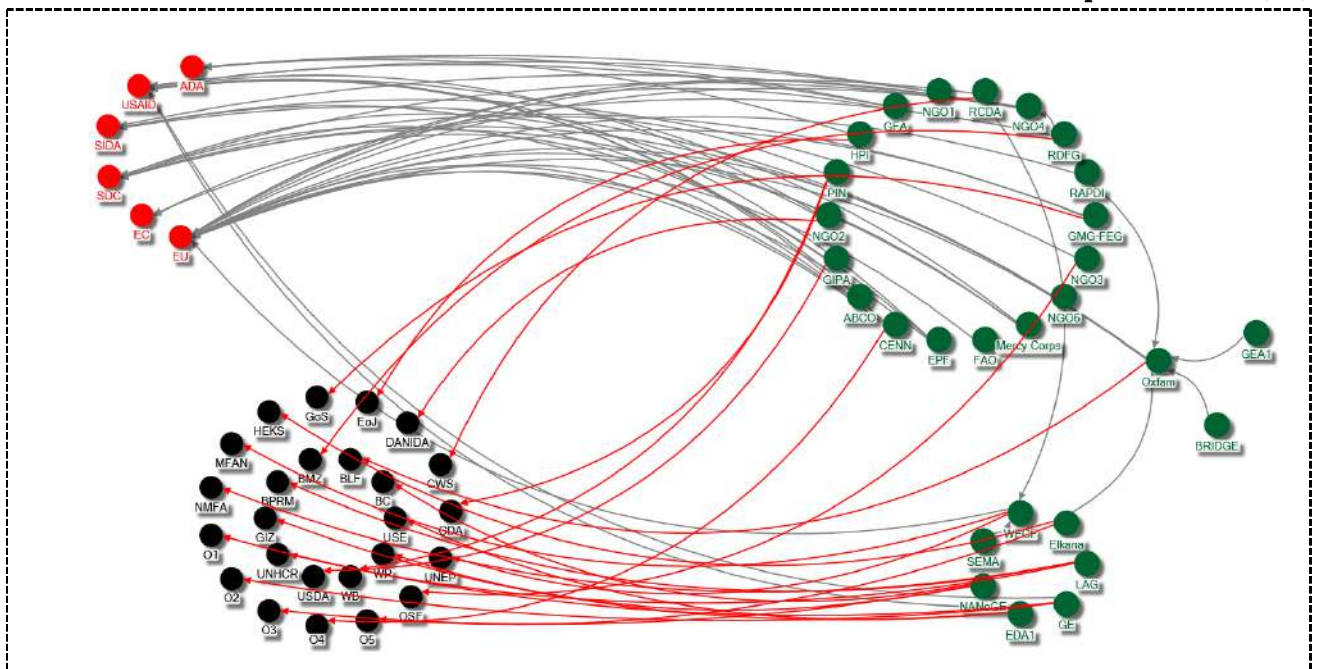
7.1.5. Desired Network

25 out of the 34 surveyed organizations named at least one state/non-state organization with whom they would like to cooperate in the future. Three organizations that named alternative organizations desired for future cooperation are circled on Map #32. 7 organizations that were named 3 or more times can be outlined and are shown on Table #12. As depicted on the table below, 3 organizations out of 7 are members of the alliance. Interesting observations are revealed in regards with the MOH. This state organization has in no way been involved as a central figure in any of the above discussed cases related to the food security network. However, cooperation with the MOH is significant in nutrition and healthy lifestyle fields, and is apparently requested by the studied organizational network. It is also worth noting that the EPF and the MES made it on the list of desired organizations as well. Cluster analysis of formal relations showed that EPF creates a separate subgroup within the

● Surveyed organizations
● State organizations desired for cooperation
● Non-state organizations desired for cooperation

Map #32 – Desired Network
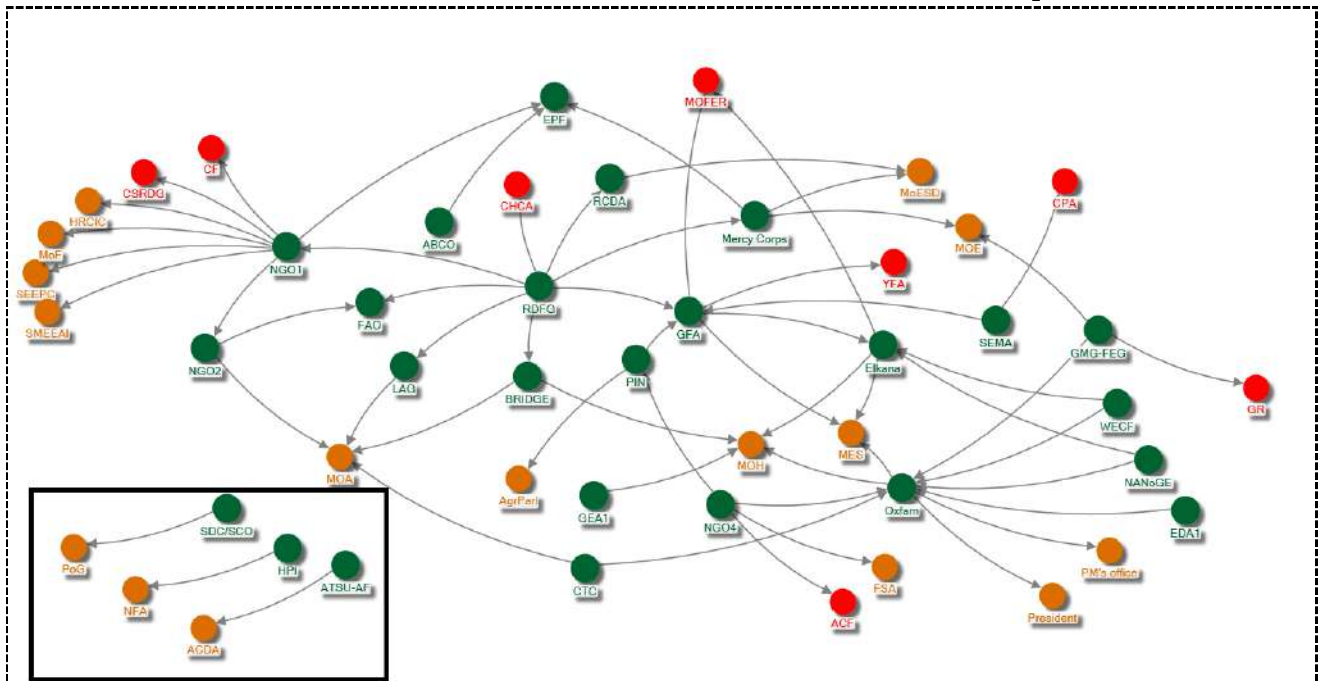
Table #12 – Most desired organizations

	Name	Type	N
Oxfam	Oxfam GB Georgia	Alliance	6
MOH	Ministry of Labor, Health and Social Affairs of Georgia	State	4
MOA	Ministry of Agriculture	State	4
GFA	Georgian Farmers' Association	Alliance	3
Elkana	Biological Farming Association Elkana	Alliance	3
EPF	Eurasia Partnership Foundation	Non-State	3
MES	Ministry of Education and Science of Georgia	State	3

Map #33 represents a virtual network merging information sharing and desired organizations networks. As a result of the merging, 12 new organizations were added to the network. Interestingly, a combination of the existing and desired networks has not instigated significant changes to the basic characteristics of the network. The above mentioned fact allows drawing of the following conclusion: FS network is an organizationally fully self-composed structure and the majority of the connections have already been essentially established. Network sustainability requires maintenance and utilization of its capacities. With respect to centrality – the influence of those organizations established to be more desirable has naturally increased within the virtual model.

● Surveyed organizations
● Three focal state organizations
● Other organizations from the information sharing network
▲ Other organizations from the desired organizations network

DENSITY: 0.017
NODES: 142 **LINKS:** 349
DEGREE CENTRALIZATION INDEX:
18.24% (IN), 20.39% (OUT)

Map #33 – Desired Network combined with information sharing
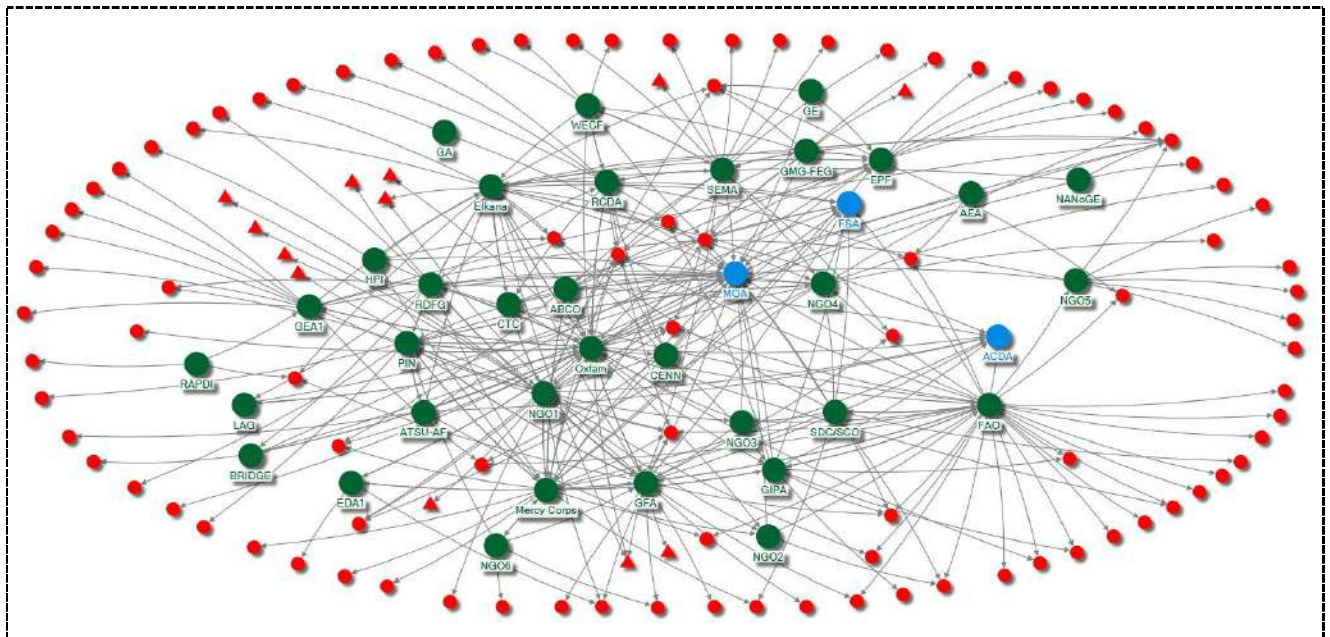
Key sustainability conclusions and recommendations for Oxfam's exit strategy:

1. The potential new organizations which were named to be beneficial for the objectives of GAARD were (Table 12): MOH, MOA, GFA, Elkana, EPF and MES. These organizations and their desired role within the GAARD should be studied in more details with GAARD members in order to make sure that the type and the objectives of their involvement adds value to the GAARD as a whole.
2. It should be also noted that Oxfam only mentioned state organizations, such as MES, MOH, President and PM's office (Map 33). The reflection of what other members of GAARD named should be considered during the exit of Oxfam and the FS Project.

7.1.6. Gender-based interrelations

19 out of the 34 surveyed organizations named at least one state/non-state organization with whom they had gender-related interrelations. Based on the outcomes of the research analysis, the most active gender-based organizations are UNWOMEN and WECF, none of which is a member of the alliance. Furthermore, 9 out of the 16 surveyed GAARD member organizations work on gender issues, however gender-based activism does not represent their main programmatic focus . Therefore, allowing more gender-focused organizations to be involved with the work conducted by the alliance needs to be established.

🟢 Surveyed organizations
🔵 State Organizations
🔴 Other

Map #63 – Gender-Based Interrelations
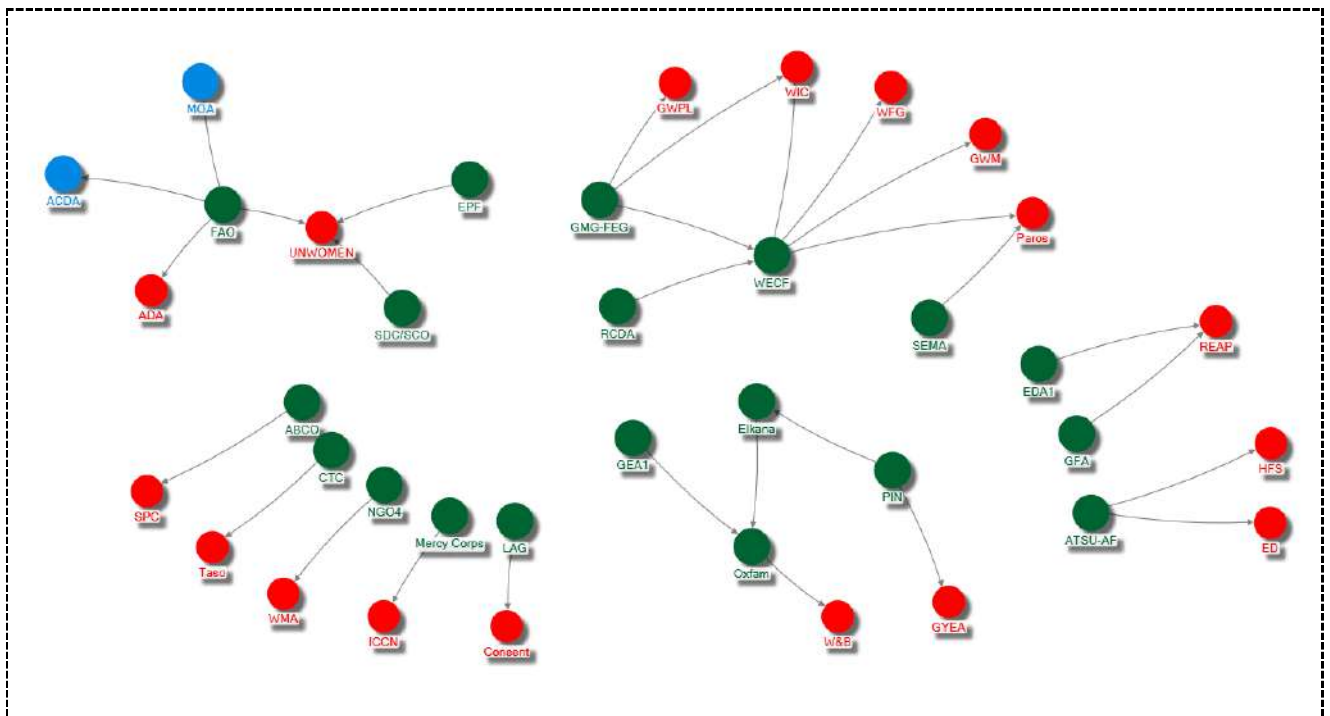
Key sustainability conclusions and recommendations for Oxfam's exit strategy:

1. Since there is no gender NGO represented in the GAARD, Oxfam is could enhance the linkage with any of the above mentioned organizations. There were two organizations revealed as central - WECF and UNWomen (Map 63):
    a. In case of WECF, the linkage can be maintained through RCDA;
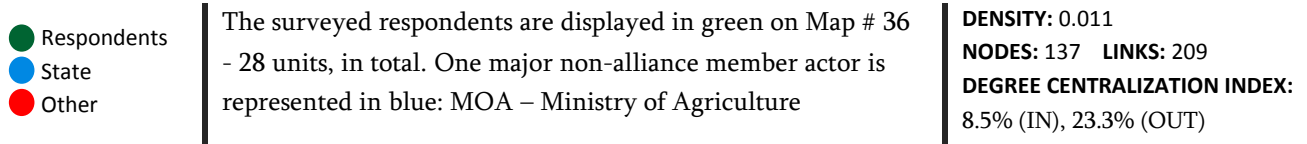   b. In case of UNWomen, the linkage can be maintained through the FAO.
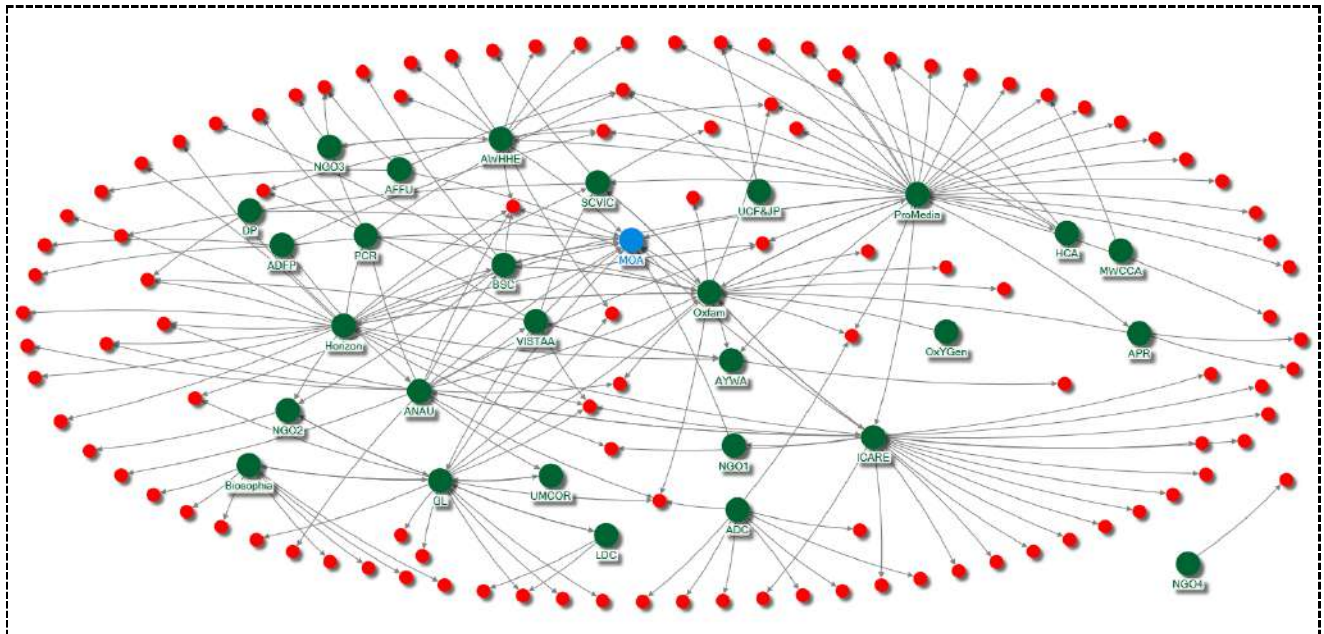
7.2. Armenia

7.2.1. Information Sharing

Data and the respective visualization in regards with information sharing are represented in the following four different aspects:

- General Network Structure
- Position of AA within the network
- Central Actors of the Network
- Analysis of independent subgroups (Cluster analyze)

7.2.1.1. General Network Structure

● Respondents
● State
● Other

The surveyed respondents are displayed in green on Map # 36 - 28 units, in total. One major non-alliance member actor is represented in blue: MOA – Ministry of Agriculture

DENSITY: 0.011
NODES: 137   **LINKS:** 209
DEGREE CENTRALIZATION INDEX:
8.5% (IN), 23.3% (OUT)

**Map #36** – Information sharing, Network structure

7.2.1.2. General Network Structure in respect with AA

The number of AA member organizations equals to 15, out of which 10 organizations were surveyed. None of the mentioned organizations refused to reveal their identities for the analytical report. Network interrelating organizations based on information sharing is allocated into 4 groups: state, non-state, AA members, and independent experts (Map #37 and Map #38)

Map #37 – Information sharing, Network structure, AA
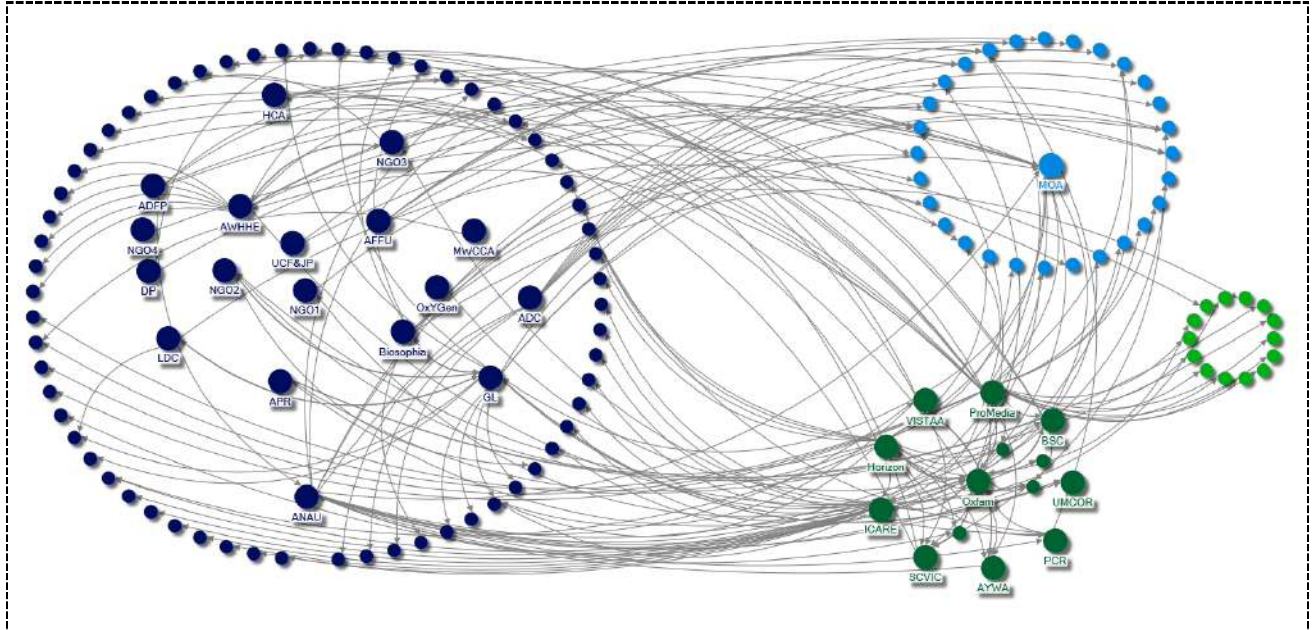
**Map #38** – Information sharing, Network structure, AA
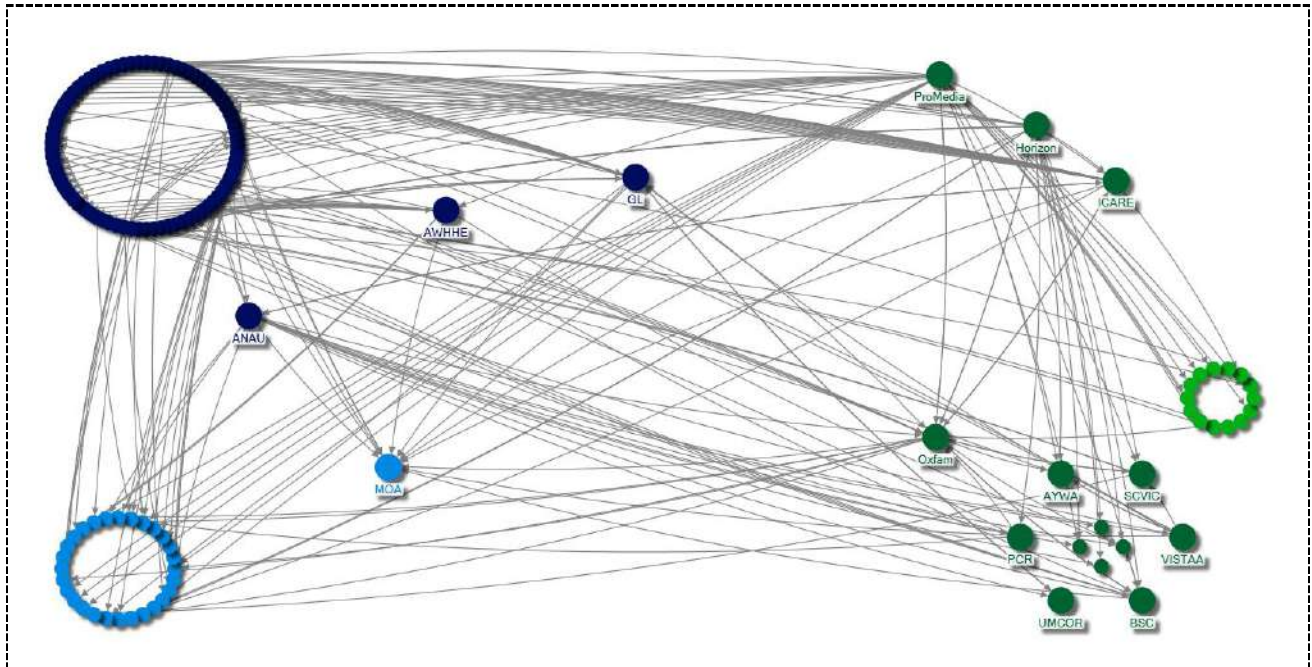
7.2.1.3. Central Actors

□ 1st Group
◇ 2nd Group
△ 3rd Group

7 types of analysis techniques were utilized in order to determine the central organizations (See table #13). 3 influential groups were revealed as a result of their collation (20 organizations in total). Sequence of the organizations connote to their status, consequently number 1 being the most highly influential group, number 2 less influential, and so on.

● AA
● State
● Non-State
● Ind. Experts

Map #40 represents organizations color coded according to their type. As depicted on the map, the first level group is comprised of 3 alliance member organizations and 1 state organization. 10 out of the 20 central actors are members of the alliance, 4 are state organizations, and the remaining 6 represent other local or international NGOs. Intensity of the interrelations among central organizations is relatively high, as well as their links with other members of the network.

Map #39 – Information sharing, Central Actors
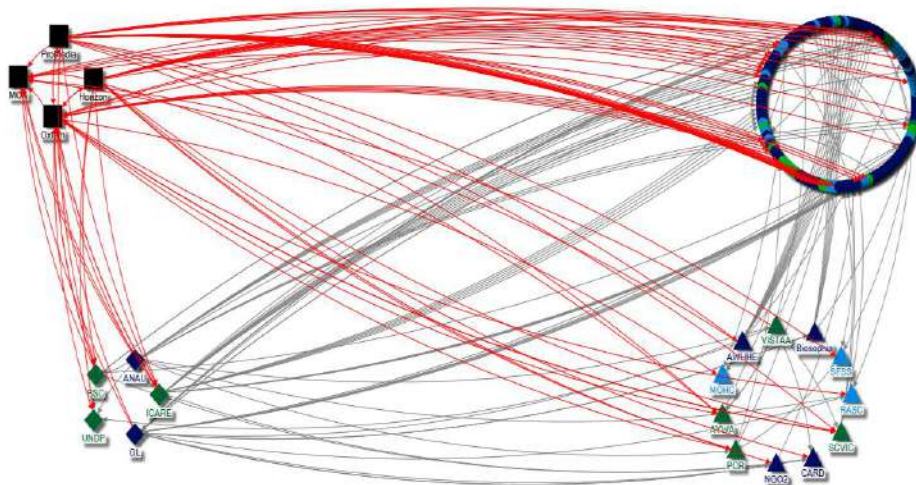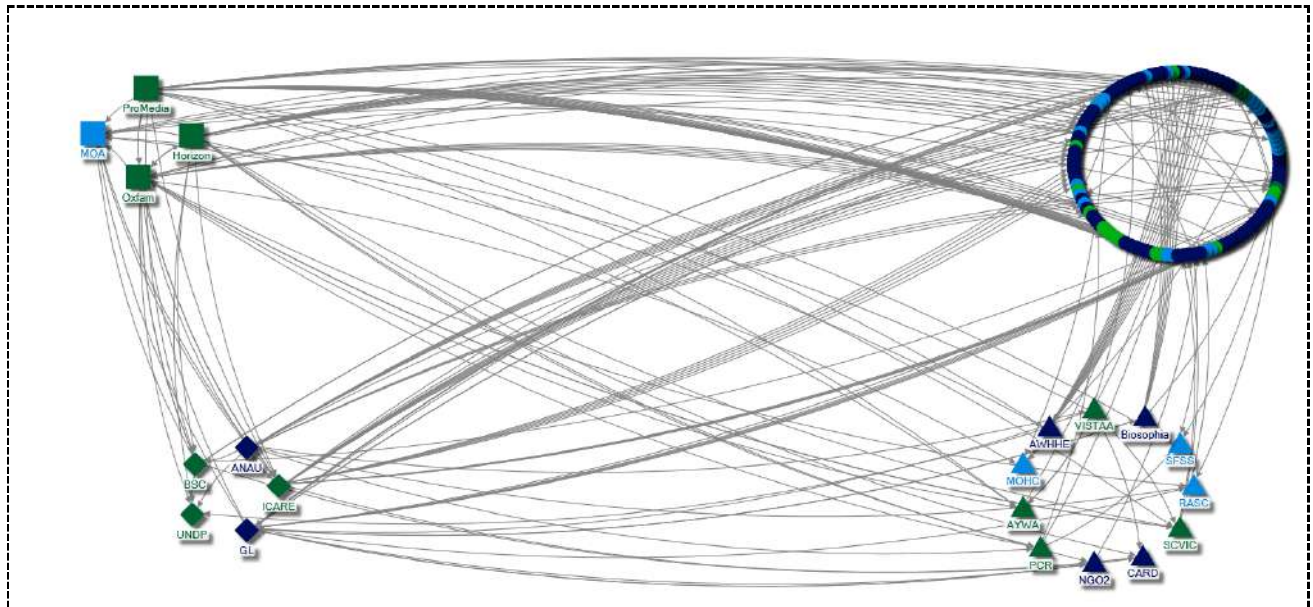
Map #40:
Intensity of **N1** Central Group member interrelations are represented via the red arrows

Table #13

| NODE	Group	In-Degree	Out-Degree	In-Closeness	Out-Closeness	Node Betw.	Eigenvector	Information
Horizon	G1	0,007	0,154	0,052	0,351	0,013	0,303	0,931
MOA	G1	0,096	0,000	0,118	0,000	0,000	0,298	0,925
Oxfam	G1	0,074	0,118	0,085	0,358	0,074	0,372	0,945
ProMedia	G1	0,007	0,243	0,052	0,386	0,032	0,349	0,944
ANAU	G2	0,015	0,118	0,042	0,338	0,011	0,270	0,924
BSC	G2	0,029	0,051	0,057	0,288	0,005	0,232	0,881
GL	G2	0,037	0,118	0,052	0,320	0,042	0,169	0,899
ICARE	G2	0,029	0,154	0,057	0,312	0,019	0,280	0,896
UNDP	G2	0,037	0,000	0,070	0,000	0,000	0,157	0,826
AWHHE	G3	0,015	0,096	0,045	0,097	0,008	0,136	0,869
AYWA	G3	0,029	0,015	0,061	0,193	0,004	0,142	0,797
Biosophia	G3	0,007	0,059	0,037	0,241	0,006	0,022	0,501
CARD	G3	0,029	0,000	0,063	0,000	0,000	0,107	0,791
MOHC	G3	0,022	0,000	0,069	0,000	0,000	0,068	0,719
PCR	G3	0,015	0,029	0,042	0,270	0,003	0,126	0,813
RASC	G3	0,029	0,000	0,076	0,000	0,000	0,100	0,780
SCVIC	G3	0,029	0,029	0,061	0,257	0,007	0,146	0,802
SFSS	G3	0,029	0,000	0,053	0,000	0,000	0,063	0,733
VISTAA	G3	0,015	0,051	0,046	0,247	0,011	0,146	0,869
NGO2	G3	0,022	0,015	0,056	0,235	0,007	0,085	0,739

7.2.1.4. Clustering (sub-groups)

Network cluster analysis revealed interesting outcomes, as a result of which 10 different groups were allocated. It should be noted that the cluster containing Oxfam does not embody the largest group. ProMedia and ICARE however create their own distinctly separate groups. At least one central organization is represented in the ten independent groups. All four independent organizations (Oxfam, MOA, ProMedia, and Horizon) on the first level ended up in separate groups. Map #4 depicts 5 independent groups connected via a single link. The remaining 5 groups create relatively balanced relations with the other groups.

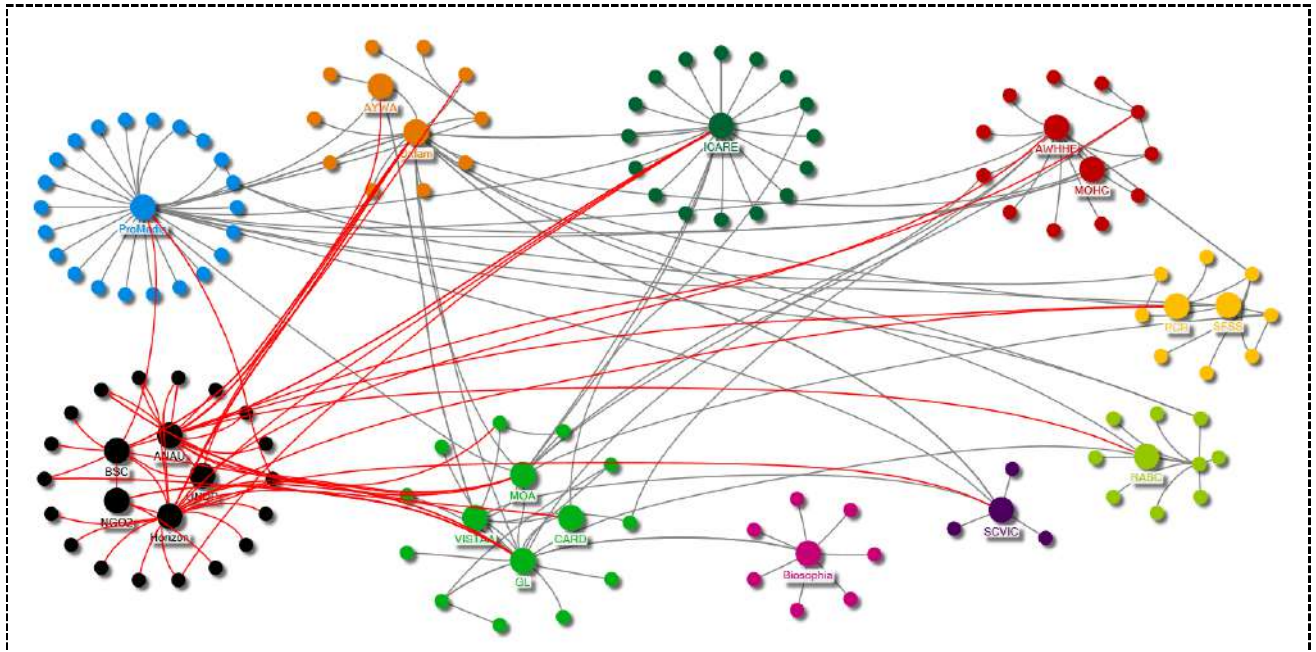**Map #41** – Information sharing, Clusters
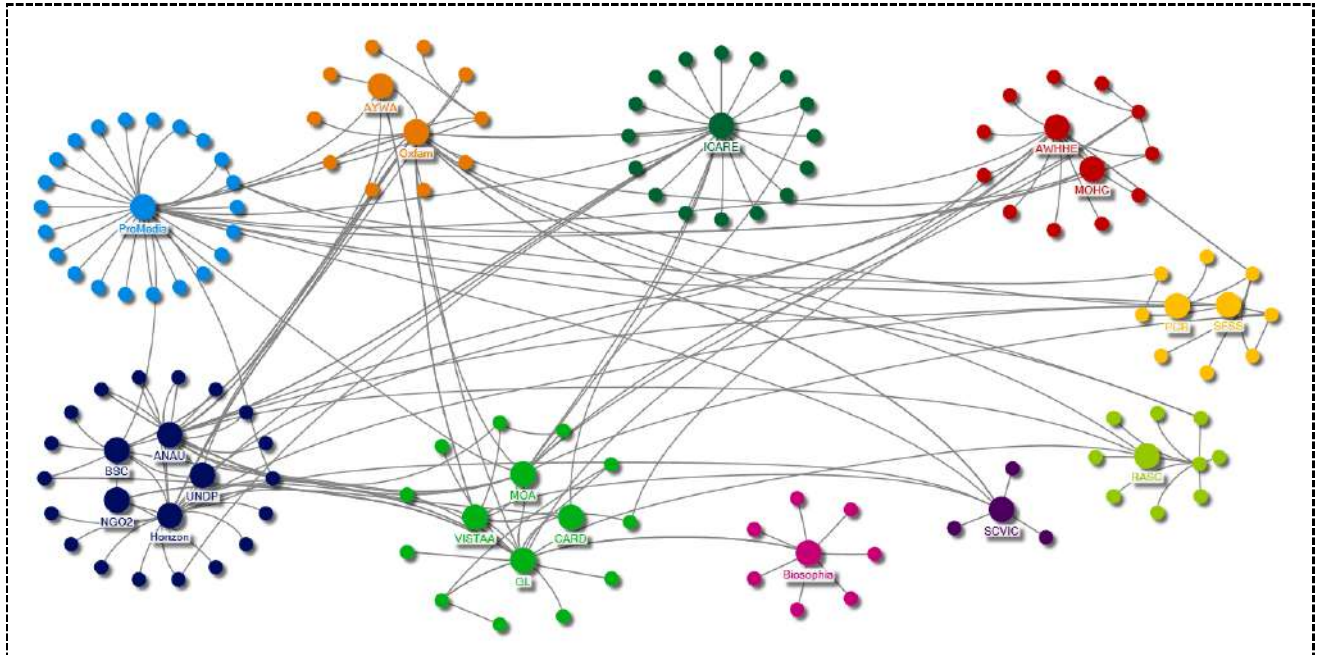
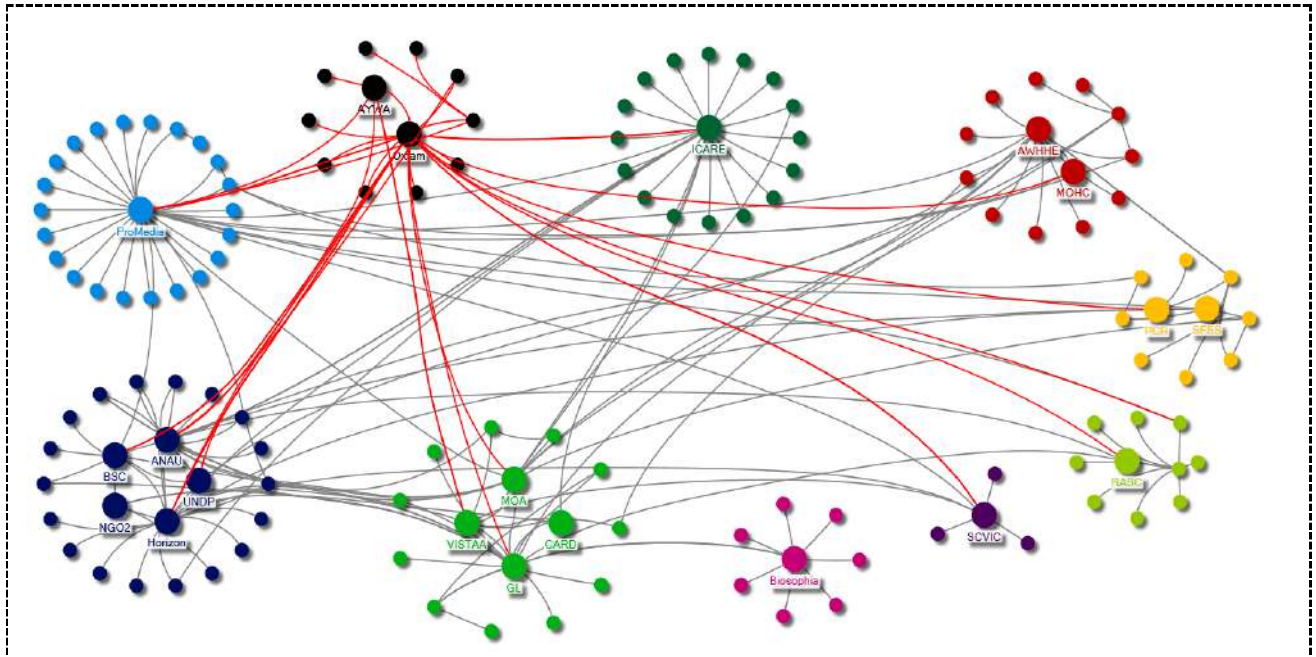**Map #42** – Information sharing, Clusters
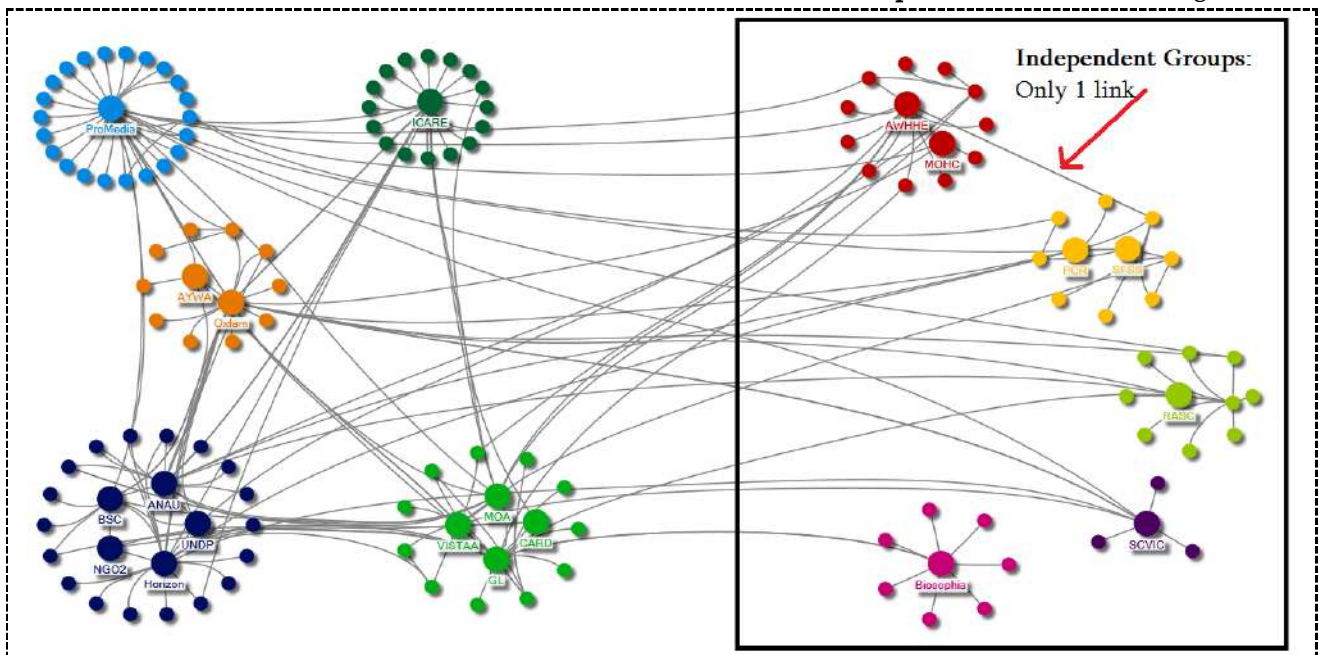
Map #43 displays links of the largest groups with the remaining 9 groups. Biosophia is only connected by a single link to the rest of the other groups. Map #44 represents Oxfam's links with the rest of the 9 clusters.

Key sustainability conclusions and recommendations for Oxfam's exit strategy:
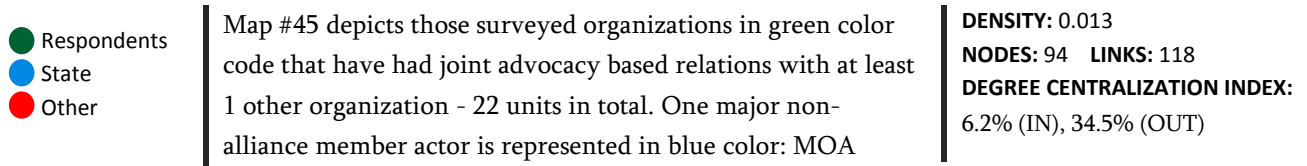
1. Oxfam, ICARE, ProMedia, and Horizon represent some of the key organizations in information sharing both within and outside AA (from AA, Table 13). Organizations such as GL, BioSophia, PCR, AWHHE and others should also be considered and the resources respectfully utilized for diffusion of information within and outside AA after Oxfam's exit in order to make sure AA is placed as a key player in the sector.

2. ProMedia, ICARE and Horizon (together with Oxfam) are those members of AA which have the biggest number of linkages outside AA, thus they are the key organizations for bringing the scale of connections for AA in terms of information sharing (Map 39). The engagement of these three organizations can play a crucial role during the exit strategy of Oxfam from AA.

3. It should be noted that ProMedia and ICARE form strong network outside AA in terms of information sharing, which does NOT overlap (Map 36). Based on the operational focus of these two organizations, such distinct sub-groups can easily be explained. However, in light of Oxfam's exit, the linkages which are reciprocated should be considered as ICARE is named to share information with Oxfam, ProMedia, Horizon and ANAU, while ProMedia only with Oxfam (Map 36). This might indicate the low gender focus of other members of AA besides Oxfam. The role of ProMedia as the main sensitizer of gender issues within AA should be guaranteed to be maintained after Oxfam's exit.

4. GL is an important organization in the information sharing network as it has its large number of connections, and it also represents the only link for AA with BioSophia which also forms its separate cluster. GL indicated sharing of information with Oxfam, however this is not reciprocated by Oxfam (Map 36). However, this link is maintained in both directions by VISTAA, UMCOR and NGO4.

5. The organizations who named to have shared information with the MoA except Oxfam include: ProMedia, ICARE, NGO1, ANAU, VISTAA, BSC, Horizon, ADFP, DP, AFFU and AWHHEE (Map 36). Some of these organizations are already members or the AA, thus AA has the linkage in terms of sharing the information with MoA. On the other hand, the current study did not provide information on the intensity of these cooperation linkages, or the type of information which was shared with the MoA. Since state organizations were not included as respondents, it is not possible to assess the reciprocated linkages. In order to guarantee that the exit of Oxfam FS project does not create a gap between AA and MoA, further information should be gathered on the above mentioned gaps both from AA members and MoA. As for the organizations which are outside AA and do have linkages in terms of information sharing with AA, the project, in consultation with AA, could explore the relevance and the potential of cooperation in the future.

6. BioSophia, SCVIC, RASC and PCR form the sub-groups in the information sharing network which is connected to other clusters with only 1 link: as mentioned above, BioSophia is connected only through GL, SCVIC through Horizon, VISTAA, ProMedia and Oxfam, RASC through GL, ANAU and Oxfam and PCR through Oxfam, ANAU and Horizon (Maps 41 and 42). Therefore, these organizations and their linkages with diverse members of the AA should be critically assessed by the team during Oxfam's exit to make sure that their resources are not lost.

Data and the respective visualization in regards with Joint Advocacy are represented in the following four different aspects:

- General Network Structure
- Position of AA within the network
- Central Actors of the Network
- Analysis of independent subgroups (Cluster analysis)

7.2.2.1. General Network Structure
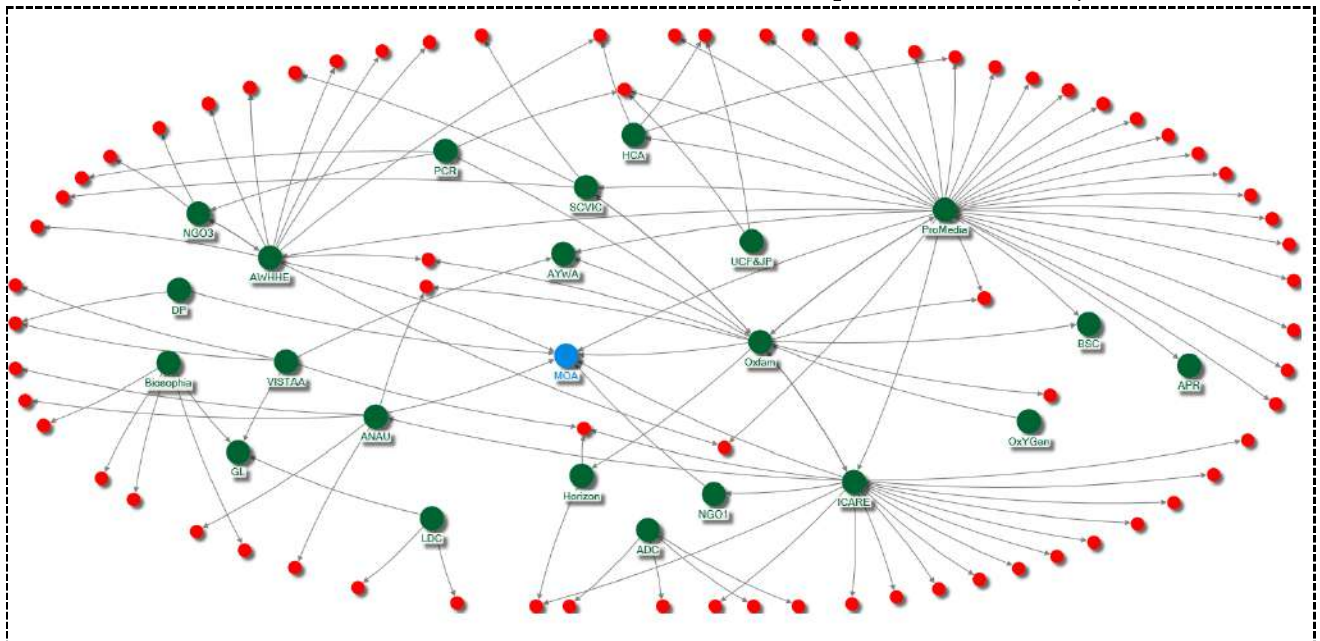
● Respondents
● State
● Other

Map #45 depicts those surveyed organizations in green color code that have had joint advocacy based relations with at least 1 other organization - 22 units in total. One major non-alliance member actor is represented in blue color: MOA

DENSITY: 0.013
NODES: 94   **LINKS:** 118
DEGREE CENTRALIZATION INDEX:
6.2% (IN), 34.5% (OUT)

Map #45 – Joint Advocacy, Network structure

7.2.2.2. General Network Structure in respect with AA

From the 15 AA member organizations, 11 surveyed organizations had joint advocacy with other organizations. Network interrelating organizations based on joint advocacy are allocated into 4 groups: State, non-state, AA members, and independent experts (Map #46 and Map #47)

Map #46 – Joint Advocacy, Network structure, AA
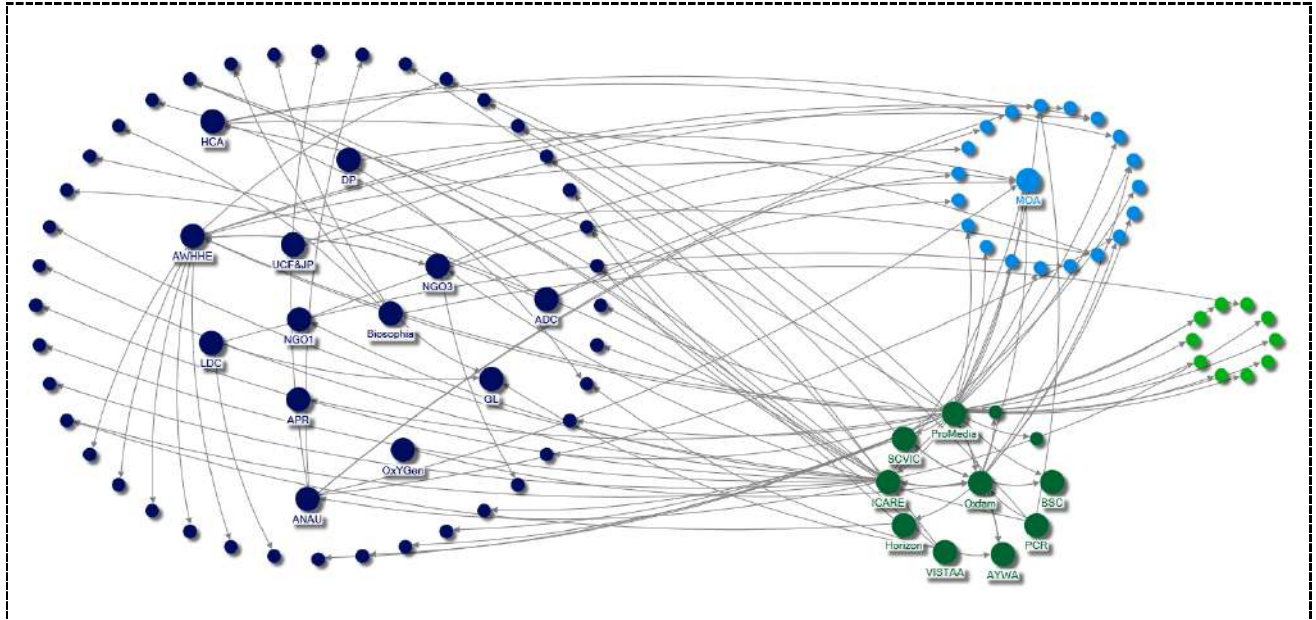
Map #47 – Joint Advocacy, Network structure, AA

7.2.2.3. Central Actors

☐ 1st Group
◇ 2nd Group
△ 3rd Group

● AA
● State
● Non-State
● Ind. Experts

7 types of analysis techniques were utilized in order to determine the central organizations (See table #14). 3 influential groups were revealed as a result of their collation (18 organizations in total). Sequence of the organizatio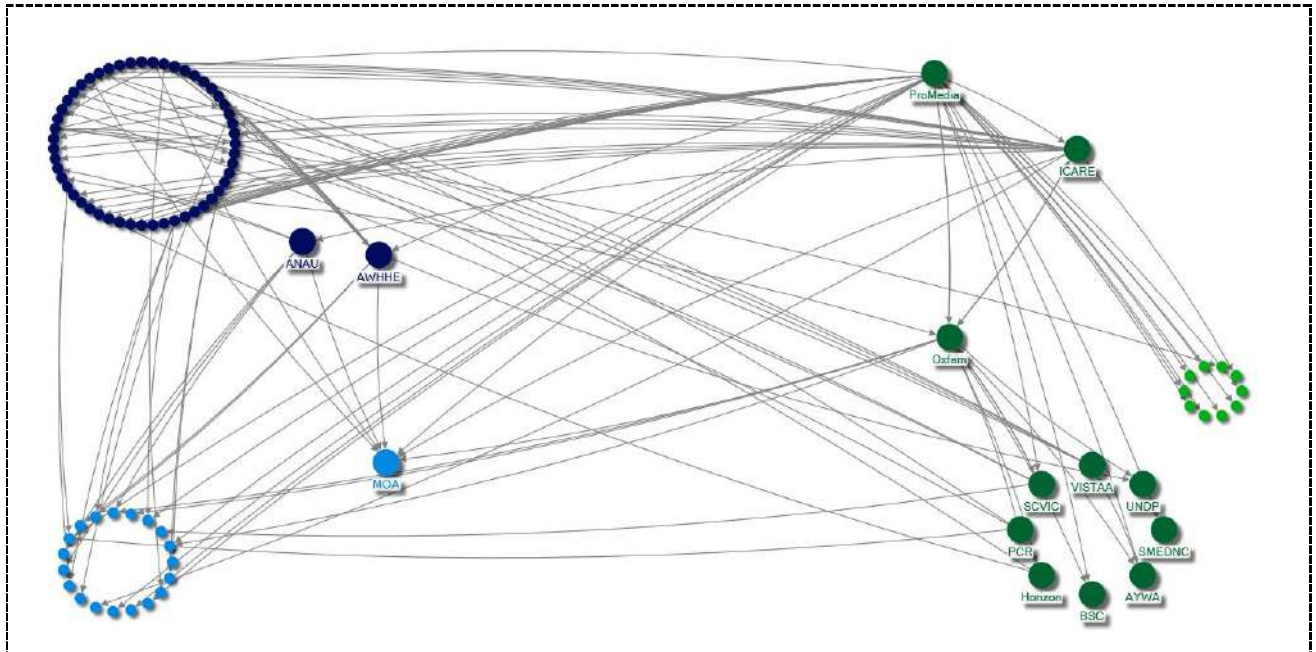ns connote to their status, consequently number 1 being the most highly influential group, number 2 less influential, and so on.

Map #48 represents organizations color coded according to their type. As depicted on the map, the first level group is comprised of 3 alliance member organizations, 1 NGO and 1 state organization. 9 out of the 18 central actors are members of the alliance, 4 are state organizations, and the remaining 5 represent other local or international NGOs.

Map #48 – Joint Advocacy, Central Actors
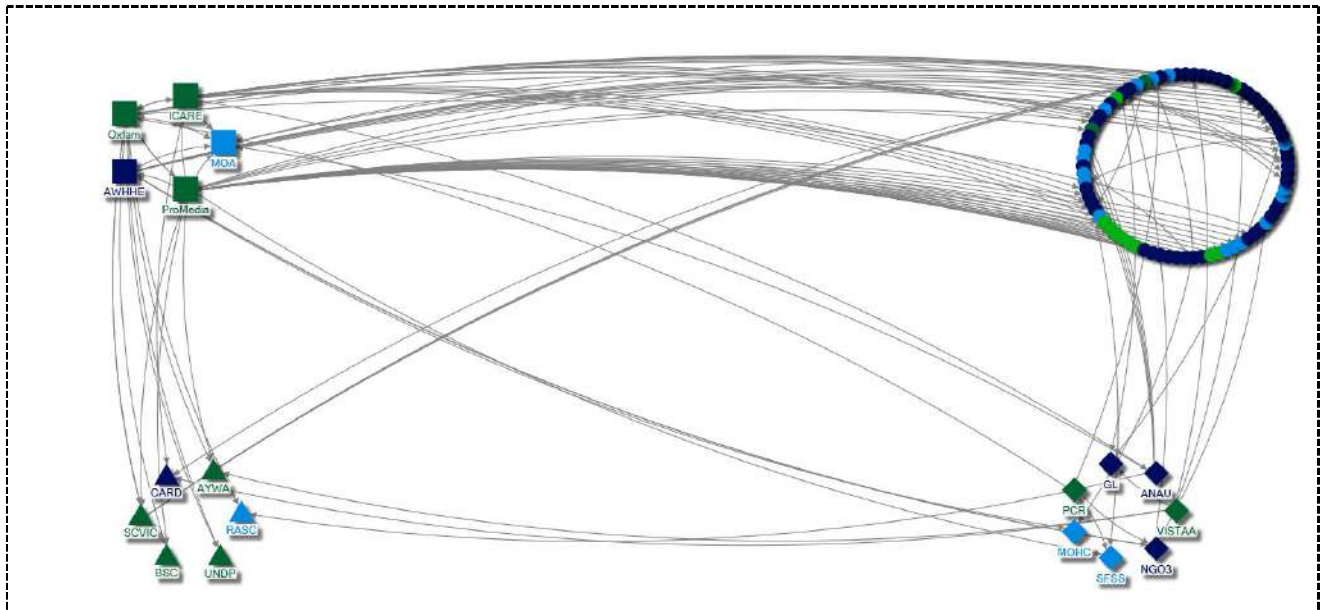
Map #49 – Intensity of **N1** Central Group member interrelations are represented via red arrows
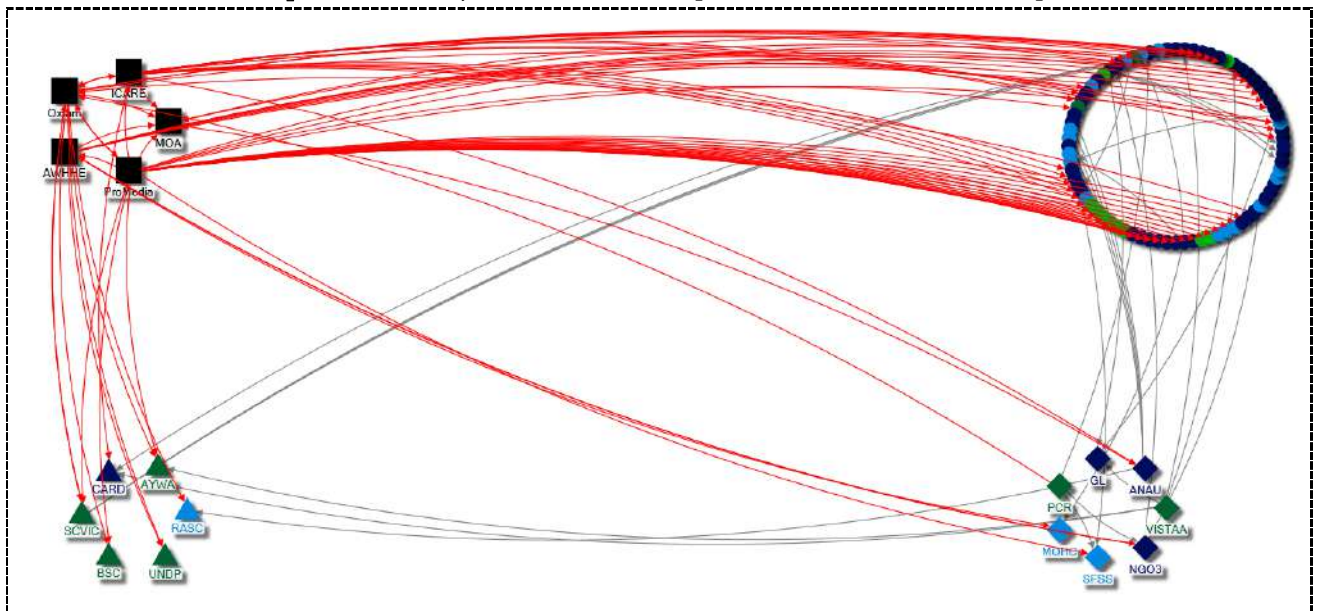
Table #14

| NODE	Group	In-Degree	Out-Degree	In-Closeness	Out-Closeness	Node Betw.	Eigenvector	Information
AWHHE	G1	0,022	0,118	0,035	0,121	0,008	0,194	0,711
ICARE	G1	0,022	0,194	0,034	0,306	0,011	0,297	0,749
MOA	G1	0,075	0,000	0,087	0,000	0,000	0,242	0,737
Oxfam	G1	0,054	0,118	0,054	0,366	0,029	0,308	0,773
ProMedia	G1	0,011	0,355	0,030	0,471	0,020	0,588	0,799
AYWA	G2	0,032	0,000	0,048	0,000	0,000	0,140	0,648
BSC	G2	0,022	0,000	0,039	0,000	0,000	0,135	0,584
CARD	G2	0,032	0,000	0,043	0,000	0,000	0,059	0,614
RASC	G2	0,022	0,000	0,044	0,000	0,000	0,061	0,556
SCVIC	G2	0,022	0,043	0,034	0,256	0,002	0,145	0,596
UNDP	G2	0,022	0,000	0,049	0,000	0,000	0,076	0,573
ANAU	G3	0,011	0,065	0,028	0,065	0,003	0,100	0,627
GL	G3	0,032	0,000	0,032	0,000	0,000	0,005	0,409
MOHC	G3	0,022	0,000	0,036	0,000	0,000	0,047	0,539
NGO3	G3	0,022	0,032	0,028	0,079	0,003	0,042	0,545
PCR	G3	0,000	0,043	0,000	0,284	0,000	0,070	0,604
SFSS	G3	0,032	0,000	0,038	0,000	0,000	0,102	0,588
VISTAA	G3	0,000	0,054	0,000	0,054	0,000	0,033	0,607

7.2.2.4. Clustering (sub-groups)

8 independent groups were allocated in terms of joint advocacy as a result of the clustering process, out of which one group has no links with the rest of the other clusters (Map #51). Similarly to the information sharing cluster, ProMedia establishes its own distinct groups for joint advocacy as well. At least 7 central organizations are represented in the 8 independent groups. All five independent organizations (Oxfam, MOA, ProMedia, Horizon, and AWHHE) on the first level ended up in separate groups. Map #51 represents Oxfam's links with the rest of the other clusters.

Map #50 – Joint Advocacy, Clusters
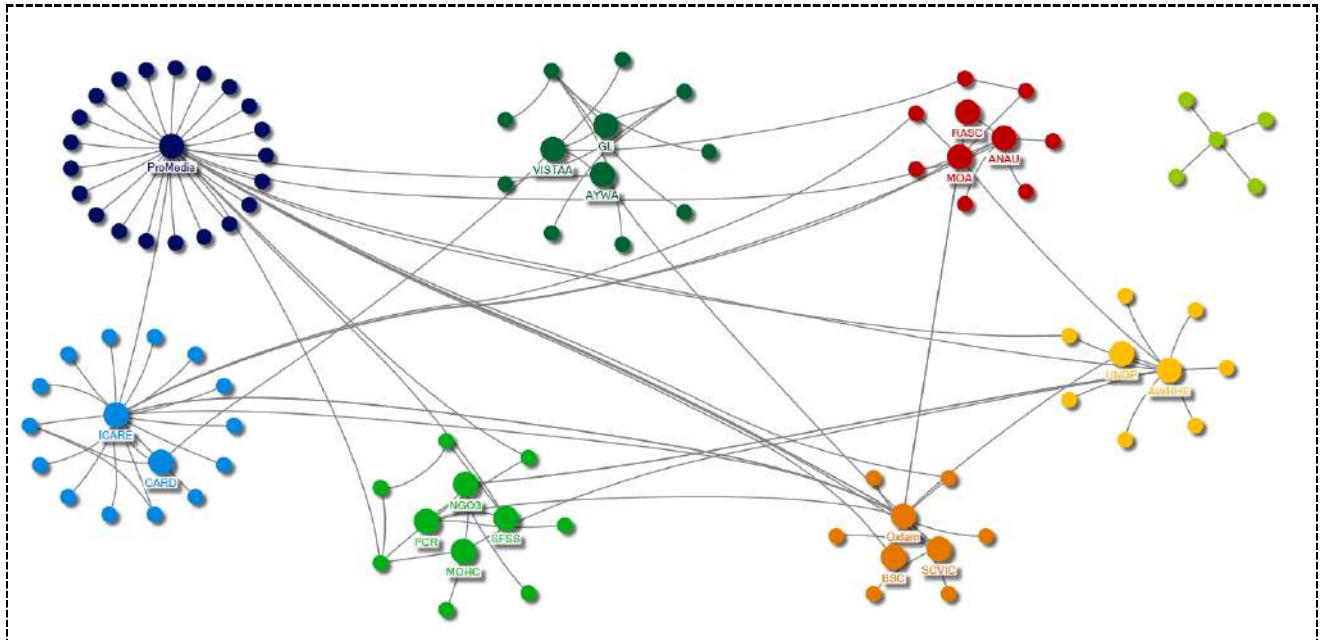
Map #51 – Joint Advocacy, Clusters
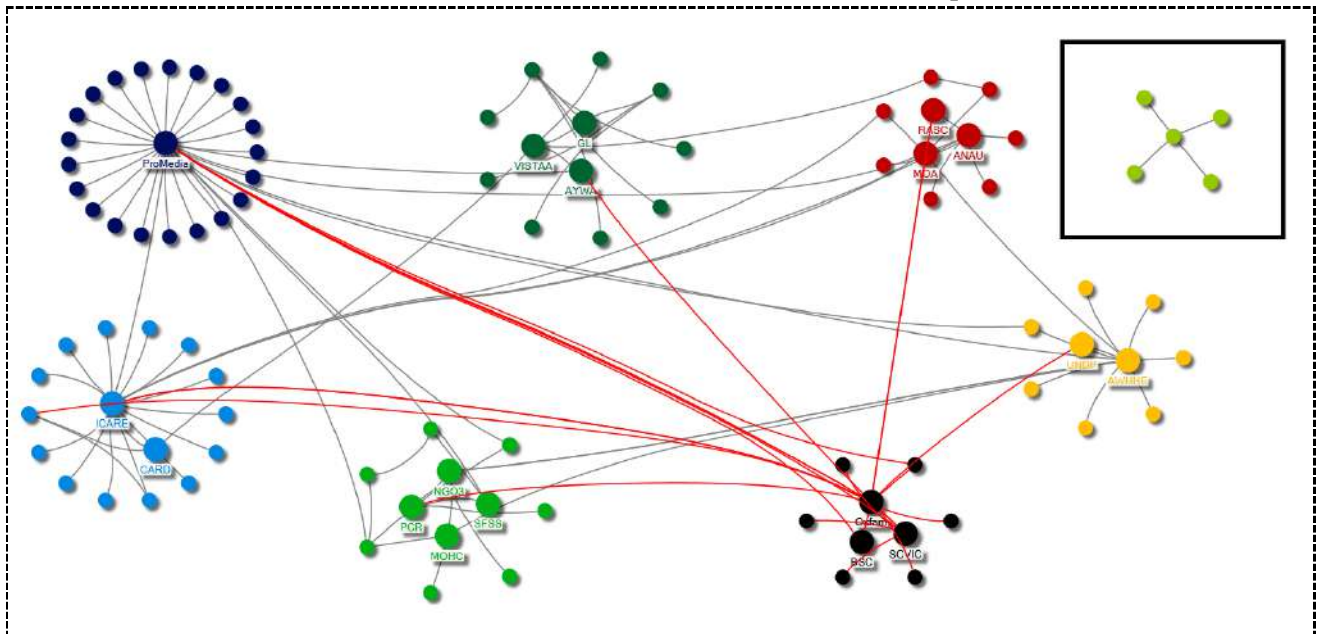
Key sustainability conclusions and recommendations for Oxfam's exit strategy:

1. ProMedia is one of the central members for the Armenia joint advocacy network based on the out-degree centrality; however the links are not reciprocated by other organizations except Oxfam (Map 45). In order to make sure that ProMedia's resources are fully utilized after Oxfam's exit, it is recommended that other members of the Alliance also engage in policy advocacy efforts with ProMedia[2]. The same applies to ICARE which was named only by Oxfam and Promedia (Map 45). As both organizations are connected to large pools of NGOs outside AA, Oxfam's exit will cause the loss of these connection for AA (ProMedia is connected to 23 organizations outside AA, and ICARE to 13 organizations).

2. BSC is connected to the Alliance in terms of advocacy efforts only through Oxfam and at the same time, it does not confirm their engagement in policy advocacy with any of the organizations during the past year (Map 45). The willingness of BSC to engage in advocacy efforts should be explored and if it exists, the linkage between BSC and other alliance members in advocacy efforts should be developed. This is especially important as AA plans to move to the policy implementation monitoring and oversight function, which will require data collection and analysis capacities, which BSC has proved to be a strong partner for Oxfam's FS project;

3. AWHHEE, even though is not part of AA, is strongly represented by the number of organizations. The only connection Oxfam currently has with this organization is ProMedia, thus the operational scope of AWHEE should be explored and if necessary the potential linkages with AA should be initiated (Map 45).

4. Organizations which claim to have had joint advocacy initiatives connecting to MoA except Oxfam include: ICARE, ProMedia, NGO1, ANAU, DP and AWHHEE (Map 45). Out of these organizations, Oxfam is only connected to ProMedia and ICARE, thus the role of these organizations in AA should be closely monitored and whenever necessary, additional linkages should be developed.

5. Specific clusters with relatively small number of connections are identified with ANAU and RASC – ANAU is only connected by ICARE and RASC by Oxfam (Map 50 and 51). ANAU is the bridging organization within this cluster (having the most connections within the cluster), thus Oxfam should make sure that the linkage with ICARE and ANAU is maintained. Another cluster is represented by AWHEE and UNDP. UNDP is linked only to Oxfam, which, considering the importance of this UN agency organization due to its reputation should be explored further. Even though UN agencies are reluctant to joint advocacy initiatives with AA, it might still be important due to its reputation. AWHEE has been discussed in point 3.

6. ADC forms totally isolated cluster from AA, thus it should be further explored and in case of its relevance, respective links should be established (Map 51).

7. GL through VISTAA connects the AA with BioSophia and then to the larger number of organizations. If AA will start having the same operational direction in terms of joint advocacy, the capacity of VISTAA in this regard should be utilized (Map 51).

8. As it was mentioned above, NGO1 is one of the organizations which has claimed joint advocacy initiatives with MoA (Map 46). Moreover, it was one of the main organizations named by the respondents to be incorporated in AA for this purposes. Thus, Oxfam should seek the linkages of AA and NGO1.

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[2] It should be also noted that ONLY Oxfam confirms to engage in joint advocacy with ProMedia

7.2.3. Formal Relations

Data and the respective visualization in regards with formal relations are represented in the following four different aspects:

- General Network Structure
- Position of AA within the network
- Central Actors of the Network
- Analysis of independent subgroups (Cluster analysis)

7.2.3.1.   General Network Structure

🟢 Respondents
🔵 State
🔴 Other

Map #52 depicts those surveyed organizations in green color code that have had formal relations with at least 1 other organization – 21 units in total. One major non-alliance member actor is represented in blue color: MOA

DENSITY: 0.019
NODES: 75   **LINKS:** 103
DEGREE CENTRALIZATION INDEX:
7.70% (IN), 17.29% (OUT)

Map #52 – Memorandum/Contract based cooperation, Network structure

7.2.3.2. General Network Structure in respect with AA

● AA
● State
● Non-State
● Ind. Experts

From the 15 AA member organizations, 10 surveyed organizations had formal relations with other organizations. Network interrelating organizations based on Memorandum/Contract is allocated into 4 groups: State, non-state, AA members, and independent experts (Map #53 and Map #54)

Map #53 – Formal Relations, Network structure, AA

Map #54 – Formal Relations, Network structure, AA

7.2.3.3. Central Actors

☐ 1ˢᵗ Group
◇ 2ⁿᵈ Group
△ 3ʳᵈ Group

● AA
● State
● Non-State
● Ind. Experts

8 types of analysis techniques were utilized in order to determine central organizations (See table #15). 3 influential groups were revealed as a result of their collation (15 organizations in total). Sequence of the organizations connote to their status, consequently number 1 being the most influential group, number 2 less influential, and so on.

Map #55 represents organizations color coded according to their type. As depicted on the map, the first level group is comprised of 3 alliance member organizations and 1 NGO. 9 out of the 15 central actors are members of the alliance, 1 is a state organization, and the remaining 5 represent other local or international NGOs.

Map #55 – Formal Relations, Central Actors
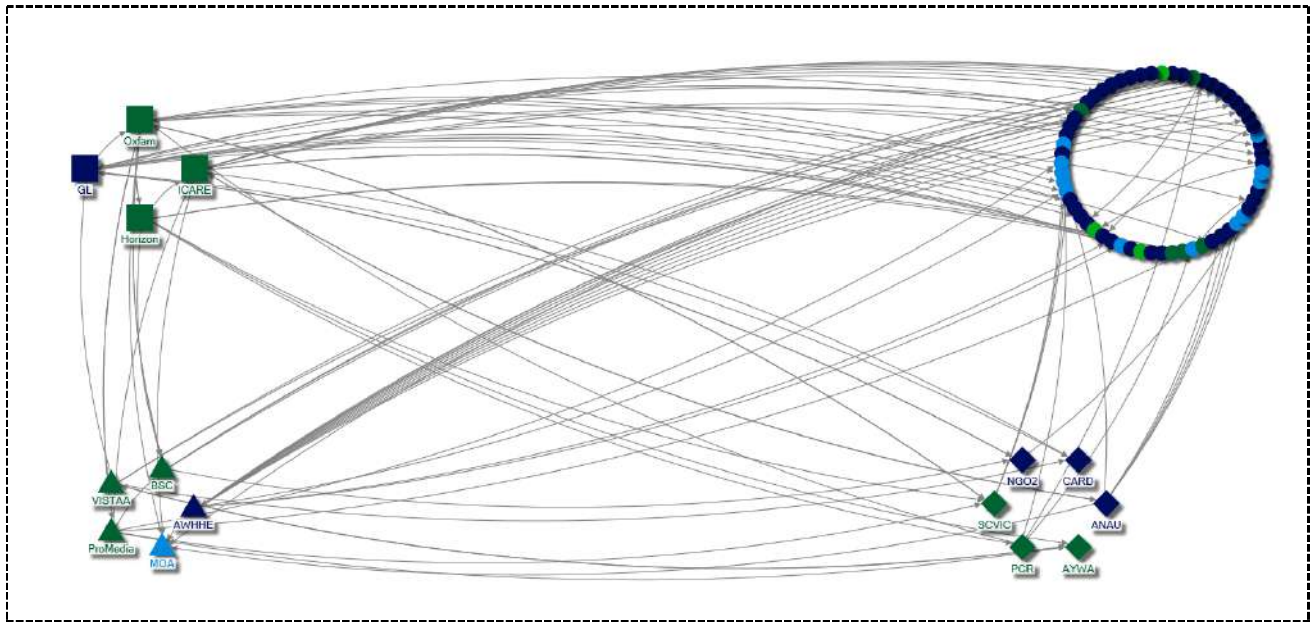
Map #56 – Intensity of **N1** Central Group member interrelations are represented via red arrows
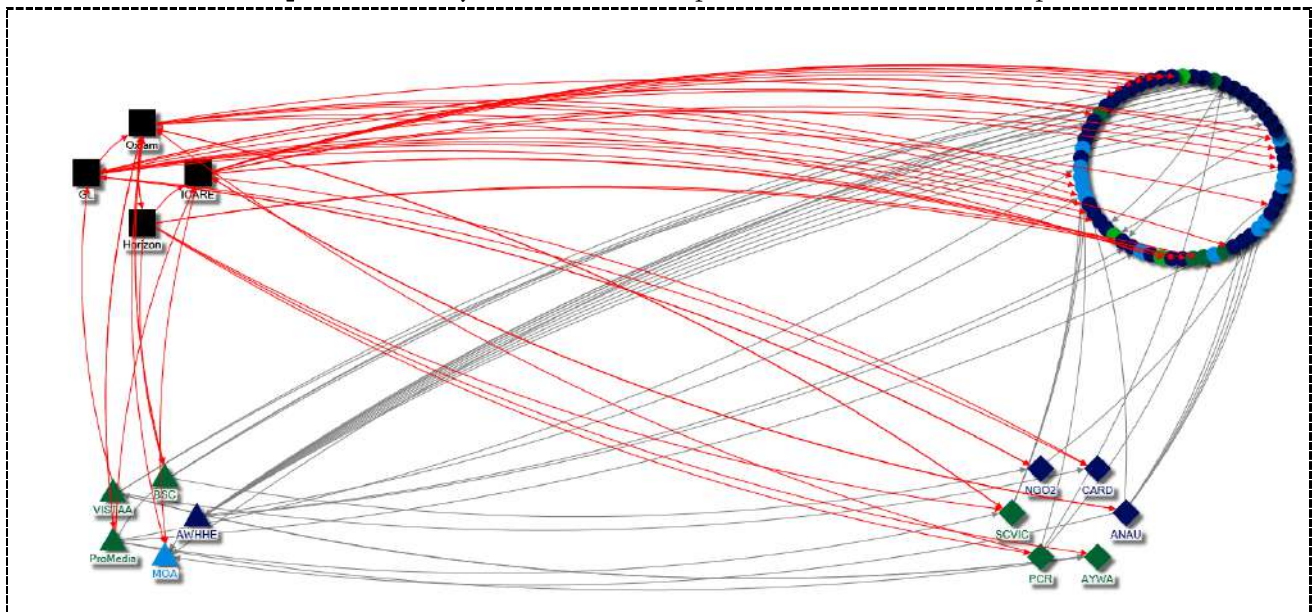
Table #15

| NODE	Group	In-Degree	Out-Degree	In-Closeness	Out-Closeness	Node Betw.	R.W Betw.	Eigenvector	Information
GL	G1	0,054	0,135	0,067	0,270	0,070	0,349	0,211	0,731
Horizon	G1	0,014	0,108	0,067	0,355	0,054	0,255	0,324	0,774
ICARE	G1	0,041	0,189	0,065	0,203	0,042	0,416	0,358	0,780
Oxfam	G1	0,095	0,135	0,108	0,303	0,108	0,422	0,428	0,823
AWHHE	G2	0,014	0,176	0,040	0,177	0,022	0,345	0,137	0,730
BSC	G2	0,041	0,068	0,072	0,256	0,017	0,219	0,250	0,742
MOA	G2	0,068	0,000	0,118	0,000	0,000	0,225	0,215	0,743
ProMedia	G2	0,014	0,095	0,067	0,305	0,025	0,210	0,289	0,751
VISTAA	G2	0,014	0,068	0,045	0,221	0,018	0,192	0,106	0,707
ANAU	G3	0,014	0,095	0,049	0,157	0,011	0,195	0,154	0,661
AYWA	G3	0,041	0,014	0,061	0,178	0,008	0,100	0,138	0,666
CARD	G3	0,041	0,000	0,087	0,000	0,000	0,141	0,129	0,666
PCR	G3	0,014	0,054	0,050	0,271	0,029	0,205	0,169	0,673
SCVIC	G3	0,041	0,054	0,072	0,233	0,007	0,147	0,224	0,681
NGO2	G3	0,027	0,027	0,075	0,210	0,012	0,116	0,092	0,592

7.2.3.4. Clustering (sub-groups)

8 independent groups have been allocated in terms of formal relations as a result of the clustering process. ICARE creates its own distinct group. At least one central organization is represented within all 8 independent groups. All four independent organizations (Oxfam, Horizon, ICARE, and GL) on the first level ended up in separate groups. Map #58 represents Oxfam's links with the rest of the other clusters.

Map #57 – Formal Relations, Clusters
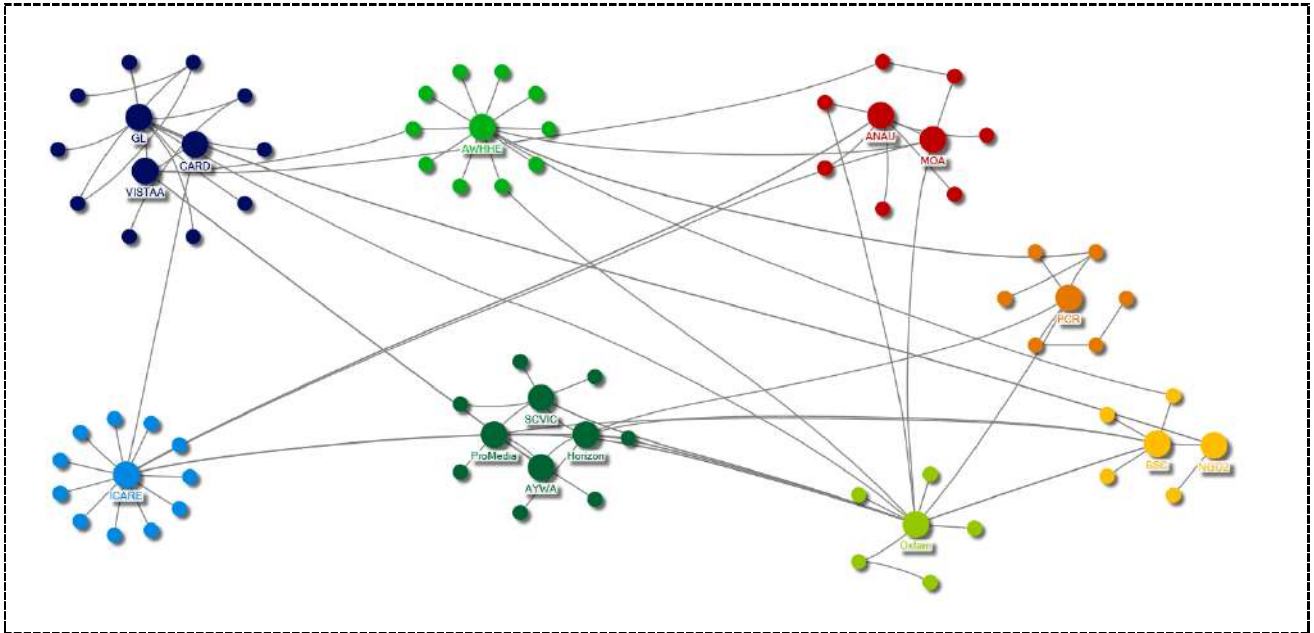
Map #58 – Formal Relations, Clusters
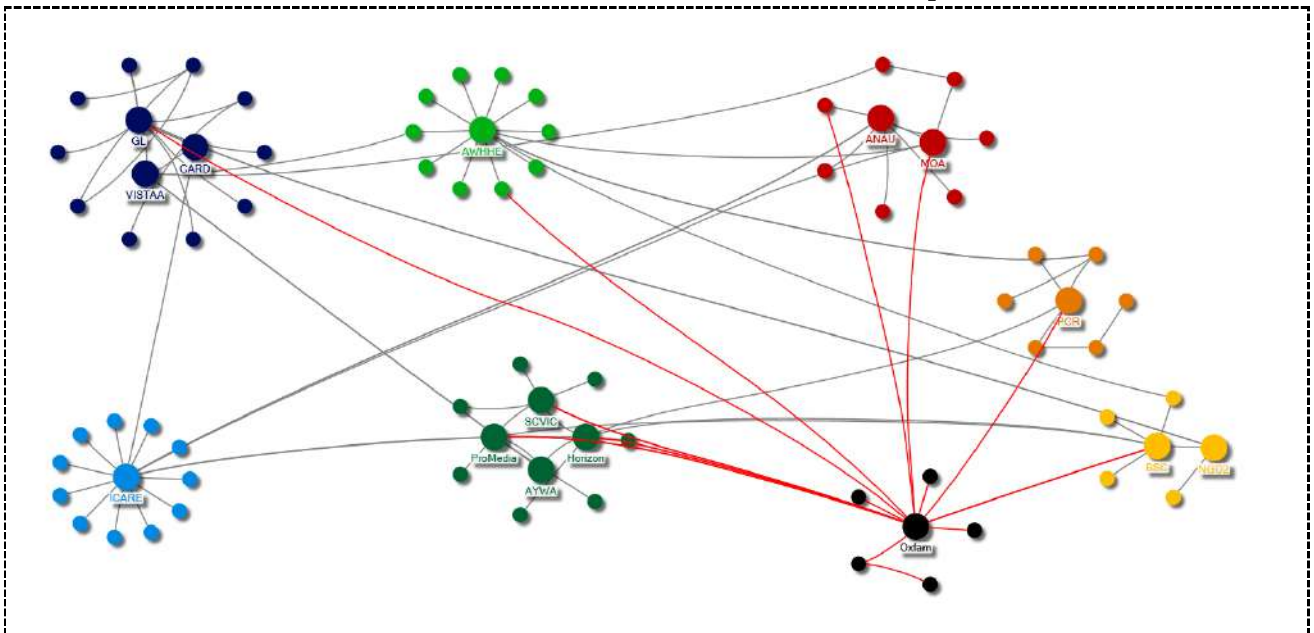
Key sustainability conclusions and recommendations for Oxfam's exit strategy:

1. Unlike informal relationships, the role of ProMedia in the network of formal relationships is decreased. However, this is not the case for ICARE which again forms a separate sub group and connects the AA with a number of linkages (Map 52).
2. AWHHEE is another important organization which has its own cluster of formal relationships and very weak connections with AA (Map 52). The connection between Oxfam and AWHHEE is established through PCR and then NGO3 in terms of formal relations.
3. GL remains a bridge to other organizations for the AA in case of formal relationships as well (Map 58). Therefore, the importance of GL as an important bridge for AA should be critically assessed and considered by Oxfam.

7.2.4. Donors

23 out of the 28 surveyed organizations shared information regarding their three focal donors. Given that Oxfam GB represents a part of the European family, donors of the organizational network related to Oxfam is most frequently based in the European Union. The list of donors is presented on Table #16. Map #59 visually displays the 23 surveyed organizations and their respective donors. Donors were divided into two groups: (**D1**) Donors named by only one respondent organization, and (**D2**) donors named by more than one respondent organization. The second group is comprised of 8 donor organizations. Surveyed organizations have forthwith been divided into the following two groups: (R1) Organizations that have equal or higher amount of relations with the main 8 donors, and (R2) organizations that have more relations with the rest of the donors (28 donors in total). It should be noted, that 3 out of the 28 surveyed organizations also serve in the capacity of a donor: NGO4, WECF and Oxfam

Map #59 – Donors
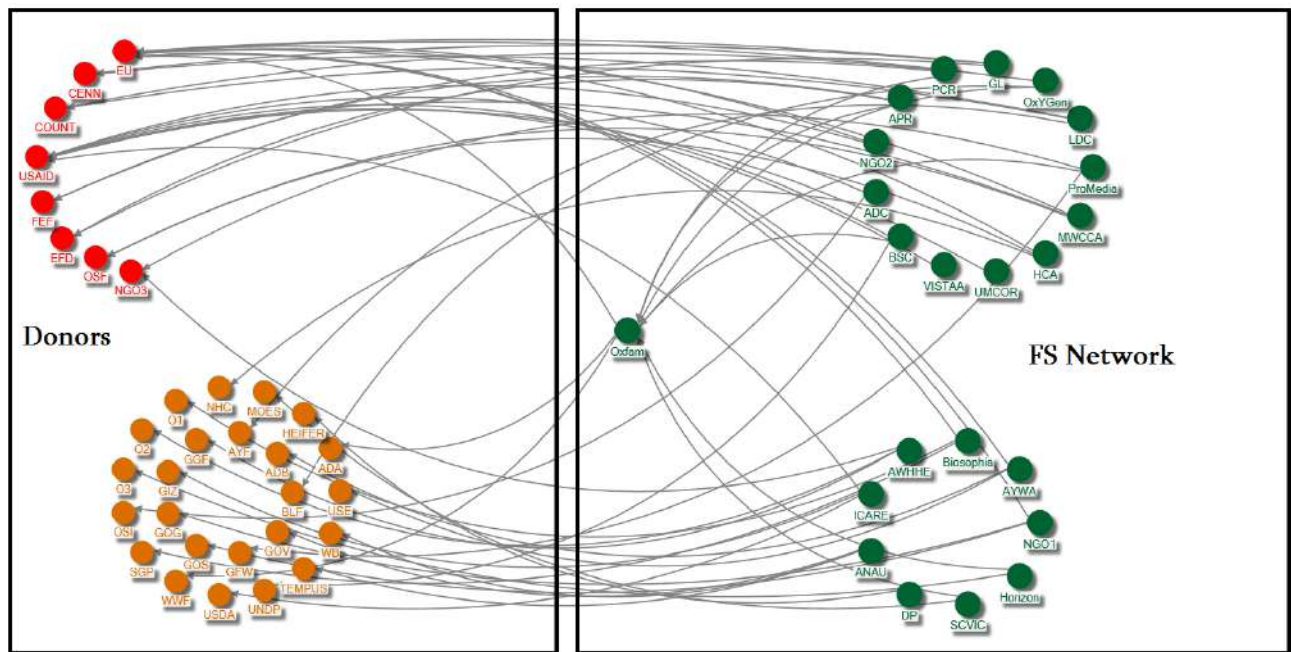
- 🟢 R1+R2 - Surveyed organizations
- 🟠 D2 - Donors named by only one respondent organization
- 🔴 D1 - Donors named by more than one respondent organization

Table #16

Acronym	Name
EU	European Union
GOV	Government RA
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
TEMPUS	TEMPUS
USDA	United States Department of Agriculture
USAID	U.S. Agency for International Developmen
SGP	UNDP GEF SGP
MOES	Ministry of Education and Science
ADA	Austrian Development Agency
EFD	European Foundation for Democracy
FEF	Friedrich Ebert Foundation
AYF	Armenia Youth Foundation
COUNT	Counterpart
CENN	Caucasus Environmental NGO Network
OSF	Open Society Foundations
NHC	Norwegian Helsinki Committee
HEIFER	Heifer International
UNDP	United Nations Development Programme
WB	World Bank
GFW	Global fund for Women
BLF	Big Lottery Fund
NGO3	NGO3
GGF	Green for Growth Fund
OSI	Open Society Institute
USE	US Embassy
ADB	Asian Development Bank
GOG	Government of Greece
GOS	Government of Switzerland
WWF	World Wild Fund
O1	Other1
O2	Other2
O3	Other3

Map #60 depicts organizational network related to the **D1** donor group. Map #61 depicts organizational network related to the **D2** donor group.

Map #60 – Donors (D1)
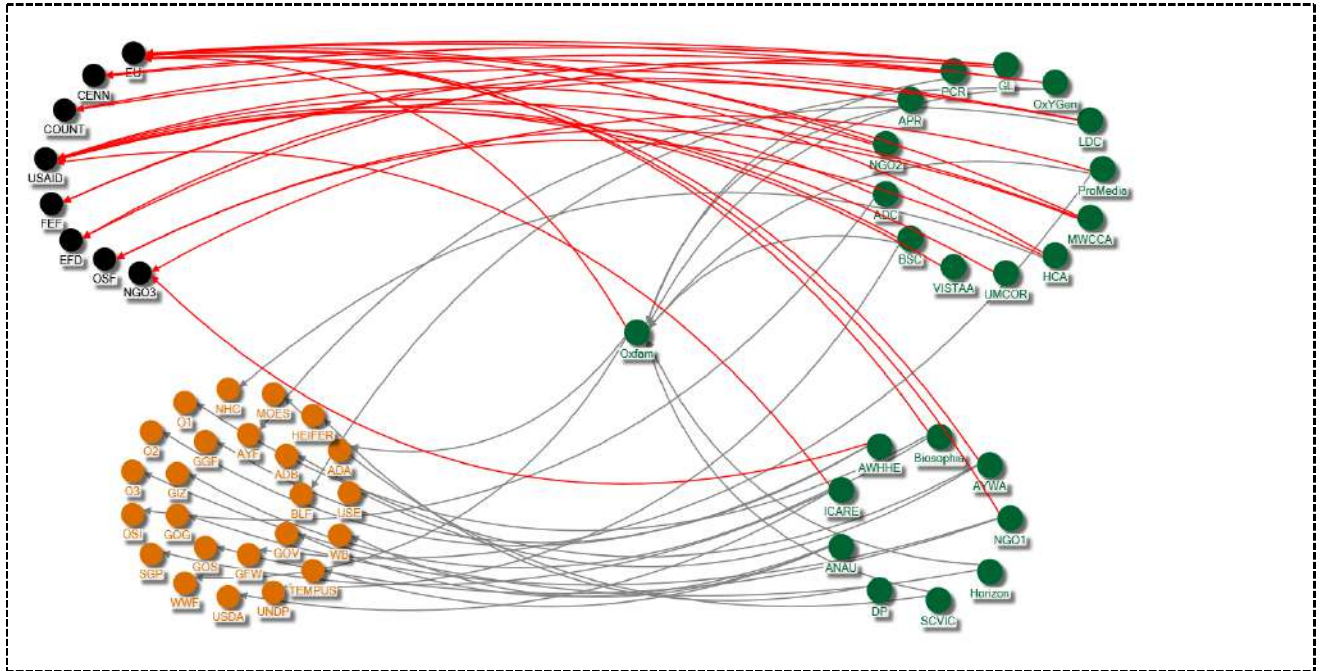
Map #61 – Donors (D2)
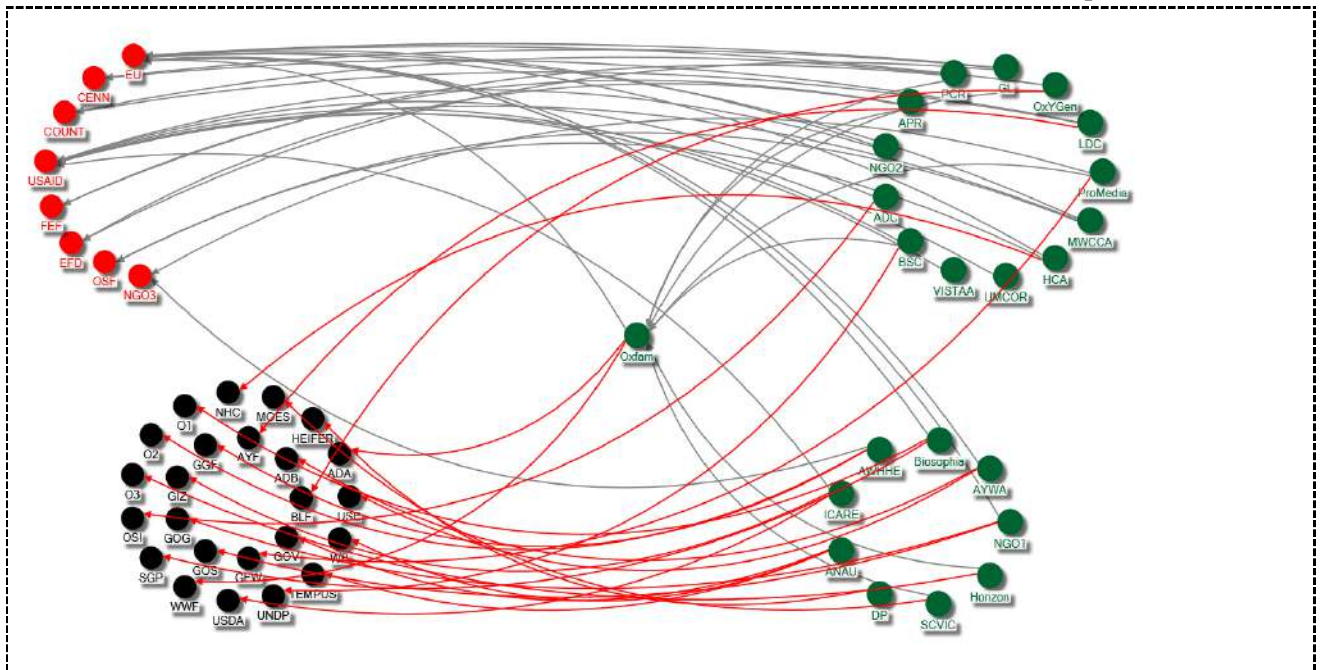
7.2.5. Desired Network

18 out of the 28 surveyed organizations named at least one state/non-state organization with whom they would like to cooperate in the future. Two organizations that named alternative organizations desired for future cooperation are circled on Map #62. 5 organizations that were named 3 or more times can be outlined and are shown on Table #17. As depicted on the table below, 3 organizations out of 5 are State organizations and the remaining two NGOs are not members of the alliance. Interesting observations are revealed in regards with Shen, as it has in no way been involved as central figures in any of the above discussed cases relating to the food security network.

🟢 Surveyed organizations
🟠 State organizations desired for cooperation
🔴 Non-state organizations desired for cooperation

Map #62 – Desired Network
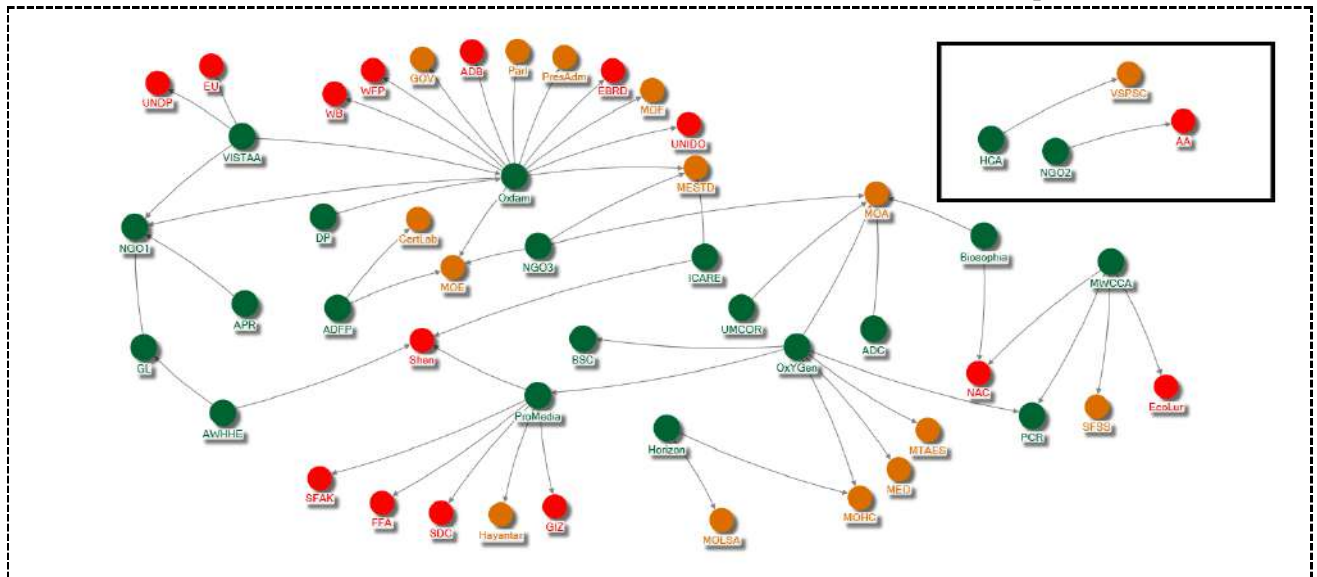
Table #17 – Most desired organizations

	Name	Type	N
MOA	Ministry of Agriculture	State	5
FAO	Food and Agriculture Organization of the United Nations	Non-State	4
Shen	Shen	Non-State	3
MOE	Ministry of Economy	State	3
MESTD	Ministry of Emergency Situations and Territorial Development	State	3

Key sustainability conclusions and recommendations for Oxfam's exit strategy:

1. The potential organizations named to be beneficial for the objectives of AA were: MOA, FAO, Shen (www.shen.am), MOE, and MESTD (Table 17). These organizations and their desired role within the AA should be studied in more details with AA members in order to make sure that the type and the objectives of their involvement adds value to the AA as a whole.

2. It should be also noted that Oxfam also named a large number of organizations, thus the follow up on the reasons and the benefits of those organizations should be brought to AA in order to increase the chances of their engagement in AA before Oxfam's exit (Map 62).

7.2.6. Gender-based interrelations

14 out of the 28 surveyed organizations named at least one state/non-state organization with whom they had gender-related interrelations. As depicted on the map, the FSN network establishes the most intense connections on gender-based issues with ProMedia, AYWA, Oxfam and WRC, of which three are members of the AA. As a result of the aforementioned data, it can be concluded that the alliance is sufficiently represented by gender-based organizations in order to contribute to the development of the FSN network

🟢 Surveyed organizations
🔴 Other

Map #64 – Gender-Based Interrelations
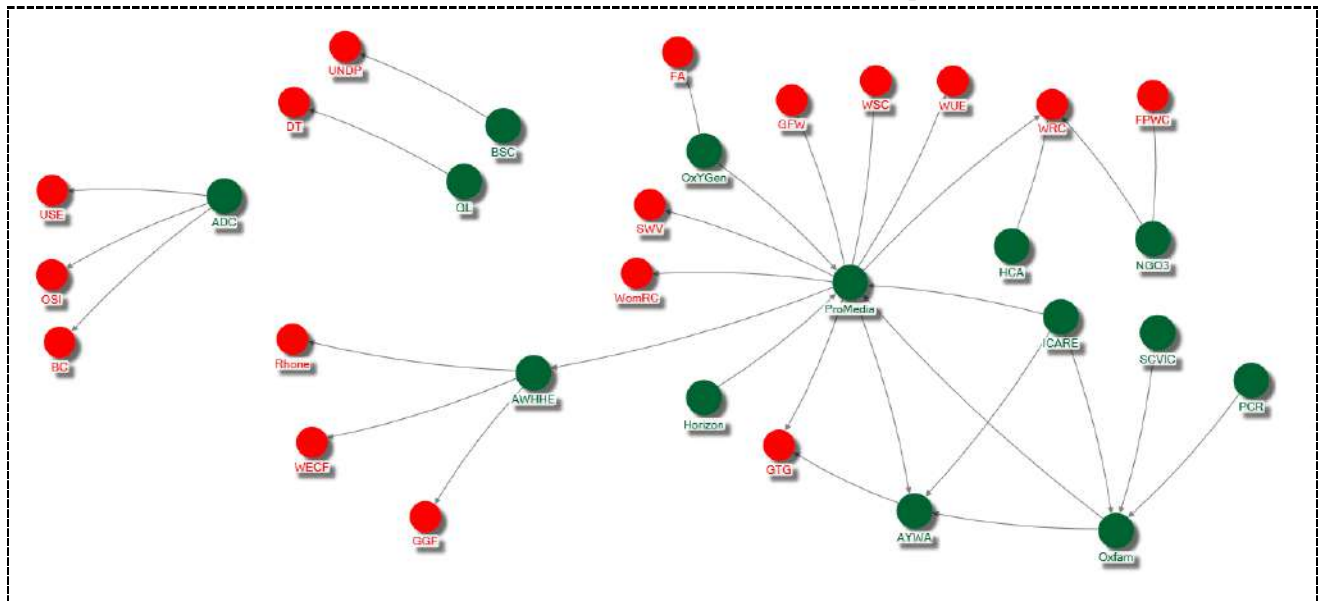
Conclusions and next steps

The two alliances - Armenian Agriculture Alliance (AA) and Georgian Alliance for Agriculture and Rural Development (GAARD) represent the core for the sustainability of the Regional Food Security Project achievements. On the one hand, the linkages of Oxfam programme objectives with this network of stakeholders serves as the basis of policy making process from bottom-to-top, and on the other hand it creates the experience for further engagement process in the oversight of strategy implementation when FS Project will be finalised. Due to the high importance of these structures, the FS Project incorporated the SNA methodology within the project Mid Term Evaluation in order to have deeper and more reliable understanding of the relationships between the members of the alliances, as well as within the wider FS networks to outline the sustainable exit strategy. The findings from the current research provide the basis for the FS Project country teams to develop the sustainability strategy of the alliances together with the engagement of Oxfam spin off organizations - OxyGen in Armenia and Bridge in Georgia.

The two alliances were developed in different timeframe, thus their organizational maturity levels are different, as well as composition, structure and management procedures. The characteristics of the member organizations also differ greatly in Georgia and Armenia, which suggests the major differences in terms of interrelations within the networks in these two countries.

Major part of the network connections in **Georgia** is self-composed, however next stage of development encompasses cementing of the established ties and transitioning on a further level of advancement. GAARD successfully performs the function of a binding structure and based on the accumulated experience is ready to cope with difficulties on an organizational level. Established links allows for a conclusion that the network will be able to promptly respond to initiatives raised by the state and international communities as well as contribute to the development of FSN. However, the developed structure and resources of the network require application.

In **Armenia**, although AA members independently demonstrate strength/centralization regarding FSN issues, AA is not their basic tool for relations. In order to achieve shared objectives, the alliance and independent network members need to develop a more direct means of cooperation with each other. High polarization level increases the risk of duplicated work. Dependence on particular subject(s) is high in the event of polarization.

The below presented section summarizes all the recommendations presented in this report regarding the exit strategy, potential gaps that might be created and the ways for mitigating those potential risks that might arise after finalization of the project.

Even though there are number of potential risks highlighted as the result of SNA throughout the report, one key strength which the FS Project can utilize is the resources of newly founded local organizations in Armenia and Georgia which represent the **legacy spin offs of Oxfam**'s work in these countries. These organizations currently are linked to the project and the alliances through coordination role of alliances, thus both OxyGen and Bridge are well aware of Oxfam FS Project priorities and also linked with the alliances. Both of these organizations were engaged in the SNA study, and for them the current findings represent the baseline of their operation in Armenia and Georgia. The general recommendation for the application of the below presented sustainable exit steps is to incorporate OxyGen and Bridge in this process in a manner to guarantee that the main implementation role is maintained by these organizations.

The following steps include:

- ✓ Country teams in coordination with spin off organizations develop an action plan based on the findings of the current report;
- ✓ Validation of the action plan with the members of Alliances by the country teams in coordination with OxyGen and Bridge;
- ✓ Development of indicators and milestones to measure the implementation of the action plan;
- ✓ Preparation of publication on the level of alliance development based on the findings of the current report;
- ✓ Preparation of article on the SNA methodology usage in the development sector;
- ✓ Prepare the anonymous version of the current report for sharing within Oxfam programs and projects;

Summary of recommendations for the exit strategy

GEORGIA

Information sharing

4. Oxfam, Mercy Corps, Elkana and NGO1 are the most central organizations in the alliance. GFA is also another strong organization which is providing the linkage to some of the clusters which are not connected to GAARD (for example the cluster of SEMA and GEA1). While Oxfam's main focus is the sharing of information with GAARD, these organizations link GAARD to a larger network, thus while developing the GAARD sustainability strategy the closer focus should be on the above mentioned organizations in order to make sure their resources are properly utilized in future as well and they do not turn into non-active members.

5. In terms of information sharing, there are number of sub-groups / clusters, which have weak linkage to GAARD, these represent as mentioned above SEMA, GEA1, NGO4 and NGO5 (see Maps 10 and 11), the closer analysis of the role of these organizations reveal the following:

   a. SEMA is connected to GAARD only through ABCO and RCDA. Loosing these bridges with SEMA, will result in losing the connection with the cluster of 11 organizations, moreover, SEMA is also linked to another important cluster of NGO4 (which is an important organization within the FS issue and its resources would benefit the advocacy efforts of GAARD). Oxfam should either start linkage of SEMA more towards GAARD or guarantee the bridging role of ABCO and RCDA in this respect is maintained during the exit.

   b. GEA1 has linkage with Oxfam and Elkana, thus Oxfam should make sure it is more incorporated with other members of GAARD, keep Elkana as the guarantee for this cooperation.

   c. NGO4 is linked through PiN, ABCO, NGO1 and Elkana, there are no contacts with Oxfam or any other organizations with GAARD. In addition to its own network, NGO4 gives the additional linkage with FAO (will be discussed in more details below), SEMA (mentioned above) and SDC. As mentioned above, it will be beneficial to bring NGO4 on board of joint advocacy on FSN related issues in Georgia.

d. The cluster of NGO5 is the most vulnerable as it has no connections nor with Oxfam or any of the GAARD members which is explained by the fact that the GAARD is composed solely by those organizations which work in agriculture and rural development and not on nutrition related issues (NGO5 works on nutrition and mother and child healthcare issues). The importance of NGO5 is the unique link to other organizations which are working on nutrition - both state and non-state organizations. The only link for Oxfam to NGO5 currently is maintained through FAO, and as FAO is not the member of GAARD, thus the linkage is extremely week. Oxfam is recommended to directly connect with NGO5 and invite to GAARD, through its involvement as one of the sub-working group under GAARD or maintain the connection through FAO (thus by increasing FAO's role in GAARD).

6. FAO is one of the most important organizations to be considered during the exit.

a. FAO connects to NGO4 and NGO5 (discussed above), as well as links GAARD to many local and international NGOs, as well as state agencies. It is also named as one of the desired organizations by the respondents to be incorporated in GAARD. Thus, Oxfam should activate the status of FAO in GAARD.

b. Additionally, FAO is linked to USDA and USAID, and so far provides the only link with USAID, while USDA is also linked through GIPA. Thus, Oxfam should explore the idea of further utilizing the bridging capital of FAO as currently the GAARD does not involve any of US related projects, which will be having a great potential in terms of joint advocacy, considering the US donated portfolio for agriculture and livelihoods development in Georgia.

Joint advocacy

3. The central organizations which remain central in case of joint advocacy as well in GAARD except Oxfam, are Mercy Corps, NGO1, Elkana, GEA1 and GIPA. In terms of joint advocacy activities some organizations and their role should be especially highlighted for the exit strategy:

a. GEA1 brings in number of organizations which are linked to GAARD only though GEA1 and the main type of these organizations is research and academic institutions, which considering the fact that GAARD aims to engage in policy monitoring and oversight in future can be an important capital. As the main link of GEA1 for GAARD is Oxfam, the project should make sure the linkage is maintained. GEA1 is also connected with RAPDI, thus inclusion of RAPDI and activation of its role within GAARD would guarantee the connections with GEA1 and to its network in a longer terms.

b. GIPA is another interesting organization in terms of joint advocacy as it is linking to the organizations outside GAARD, some of which as mentioned above are USDA and USAID, thus its role to bring in the USAID projects' voices in the alliance should be assessed and utilized.

c. The importance of FAO remains the same as in case of information sharing, which is another confirmation for activating FAO within GAARD.

d. As in case of information sharing, NGO5 has its distinct group for joint advocacy which is not connected to GAARD. Thus the need for initiating the linkage with NGO5 and GAARD is essential in this regard for Oxfam.

e. As mentioned above, NGO1 is also one of the central members in terms of joint advocacy, and its role is also important as it is linked with NGO4 together with ABCO and RDFG. Thus

Oxfam should assess the roles of these organizations and develop a path for linking with NGO4.

4. The linkage with MoA in terms of joint advocacy except Oxfam is also maintained by NGO1, ABCO, GEA1, PiN, CENN, FAO, HPI, ATSU-AF, EPF, and GMG-FEG. Out of these organizations some have already been discussed above; in terms of other organizations the following should be highlighted:
    a. ABCO also provides linkage with FSA, which Oxfam does not have currently, however as it is maintained by other members of GAARD as well, Oxfam does not have to put extra resources in it (Mercy Corps, CENN and RCDA are also linked with FSA); As mentioned above ABCO is one of the links to NGO4 and that is where its capital can be assessed more.
    b. PiN is mostly concentrated within GAARD but it also links to number of local governance offices, thus its resources can be further utilized for grass-root connections.
    c. Importance of FAO should be highlighted here as well, as it connects to all three main state agencies: MoA, FSA and ACDA, thus its engagement not only provides extra linkages for various non state organizations but at the same time gives the possibility to diffuse the advocacy efforts with various state organizations simultaneously.
    d. Important organizations are EPF and GMG-FEG as they link GAARD to number of clusters (such as to WECF (gender NGO, link also maintained towards RCDA) and SEMA. EPF is one of the most active organizations working in the sector of food safety currently in Georgia, considering the linkages with food safety and food security the linkage between GAARD and EPF would benefit both issues as unified efforts with the advocacy targets can be key to successful advocacy.

Formal relations

2. The most vivid finding in terms of formal relationships is the case of RCDA, which represents the only link for GAARD and Oxfam with the cluster of organizations such as SEMA, GMG and EPF mentioned above.
    a. Considering the fact that EPF is working very actively in food safety related issues, the potential for the linkage with GAARD should be established by Oxfam through RCDA (or as discussed above through other organizations);
    b. RCDA also has mutual linkage with WECF, which is a gender NGO and due to GAARD's gap in this respect can be further utilized in this direction.

Desired network

3. The organizations which were named to be beneficial for the objectives of GAARD to be connected to the alliance were: MOH, MOA, GFA, Elkana, EPF and MES. These organizations and their desired role within the GAARD should be studied in more details with GAARD members in order to make sure that the type and the objective of their involvement gives benefit for GAARD as a whole.
4. It should be also noted that Oxfam only mentioned state organizations, such as MES, MOH, President and PM's office. The reflection of what other members of GAARD named should be considered during exit.

Gender based interrelations

2. As far as there is no gender NGO represented in GAARD, Oxfam is recommended to enhance the linkage with any of the above mentioned organizations. There were two organizations revealed as central WECF and UNWomen:
   a. In case of WECF the linkage can be maintained through RCDA;
   b. In case of UNWomen the linkage can be maintained through FAO.

ARMENIA

Information sharing

7. Oxfam, ICARE, ProMedia and Horizon represent some of the key organizations in information sharing both within and outside AA. Organizations such as GL, BioSophia, PCR, AWHHE and others should also be considered and the resources respectfully utilized for diffusion of information within and outside AA after Oxfam's exit in order to make sure AA is placed as a key player in the sector.

8. ProMedia, ICARE and Horizon (together with Oxfam) are those members of AA which have the biggest number of linkages outside AA, thus they are the key organizations for bringing the scale of connections for AA in terms of information sharing. The engagement of these three organizations can play a crucial role during the exit strategy of Oxfam from AA.

9. It should be noted, that ProMedia and ICARE form strong network outside AA in terms of information sharing, which is NOT overlapping. Based on the operational focus of these two organizations such distinct sub-group can easily be explained, however, while Oxfam's exit, the linkages which are reciprocated should be considered as ICARE is being named to be sharing information with Oxfam, ProMedia, Horizon and ANAU, while ProMedia only by Oxfam. This might indicate the low gender focus of other members of AA besides Oxfam, thus the role of ProMedia as the main sensitizer of gender issues within AA should be guaranteed to be maintained after Oxfam's exit.

10. GL is an important organization in the information sharing network as it on the one hand has its large number of connections, and on the other hand represents the only link for AA with BioSophia which also forms its separate cluster. GL indicated the sharing of information with Oxfam, however it is not reciprocated by Oxfam, on the other hand, this link is maintained in both directions by VISTAA, UMCOR and NGO4.

11. The organizations who have named to have shared the information with MoA except Oxfam include: ProMedia, ICARE, NGO1, ANAU, VISTAA, BSC, Horizon, ADFP, DP, AFFU and AWHHE. Some of this organizations are already the members or the AA, thus AA has the linkage in terms of sharing the information with MoA. On the other hand, the current study did not provide the information on the intensity of these cooperation linkages, or the type of information which was shared with MoA. As the state organizations were not included as respondents, it is not possible to assess the reciprocated linkages. In order to guarantee that the exit of Oxfam FS project does not create gap between AA and MoA, further information should be gathered on above mentioned gaps both from AA members and MoA. As for the organizations which are outside AA and do have linkages in terms of information

sharing with AA, the project, in consultation with AA, could explore the relevance and the potential of cooperation in future.

12. BioSophia, SCVIC, RASC and PCR form the sub-groups in the information sharing network which is connected to other clusters with only 1 links: as mentioned above, BioSophia is connected only through GL, SCVIC through Horizon, VISTAA, ProMedia and Oxfam, RASC through GL, ANAU and Oxfam and PCR through Oxfam, ANAU and Horizon. Thus, these organizations and their linkages with diverse members of the AA should be critically assessed by the team during Oxfam's exit to make sure their resources are not lost.

Joint advocacy

9. ProMedia is one of the central members for the Armenia joint advocacy network based on the out-degree centrality, however the links are not replicated by other organizations except Oxfam. In order to make sure that ProMedia's resources are fully utilized after Oxfam's exit, it is recommended that other members of the Alliance also engage in policy advocacy efforts with ProMedia. The same applies to ICARE which has been named only by Oxfam and Promedia. As both organizations are connected to large pool of NGOs outside AA, Oxfam's exit will cause the loss of these connection for AA (ProMedia is connected to 23 organizations outside AA, and ICARE to 13 organizations).

10. BSC is connected to the Alliance in terms of advocacy efforts only through Oxfam and at the same time, it does not confirm the engagement in policy advocacy with any of the organizations during the past year. The willingness of BSC in engagement of advocacy efforts should be explored and if it exists, the linkage between BSC and other alliance members in advocacy efforts should be developed. This is especially important as AA plans to move to the policy implementation monitoring and oversight function, which will require the data collection and analysis capacities, in which BSC has proved to be a strong partner for Oxfam's FS project;

11. AWHHEE, even though is not the part of AA, is strongly represented by the number of organizations. The only connection Oxfam currently has with this organization is ProMedia, thus the operational scope of AWHEE should be explored and if necessary the potential linkages with AA should be initiated.

12. Organizations which name to have the joint advocacy initiatives connecting to MoA except Oxfam include: ICARE, ProMedia, NGO1, ANAU, DP and AWHHEE. Out of these organizations, Oxfam is only connected to ProMedia and ICARE, thus the role of these organizations in AA should be closely monitored and whenever necessary additional linkages should be developed.

13. Specific clusters with relatively small number of connections are identified with ANAU and RASC – ANAU is only connected by ICARE and RASC by Oxfam. ANAU is the bridging organization within this cluster (having the most connections within the cluster), thus Oxfam should make sure that the linkage with ICARE and ANAU is maintained. Another cluster is represented by AWHEE and UNDP. UNDP is linked only to Oxfam, which, considering the importance of UN agency organization due to its reputation should be explored further. Even though UN agencies are reluctant to joint advocacy initiatives with AA, it might still be important due to its reputational capital. AWHEE has been discussed in point 3.

14. ADC forms totally isolated cluster from AA, thus it should be further explored and in case of its relevance respective links should be established.

15. GL through VISTAA connects the AA with BioSophia and then to the larger number of organizations. If AA will start having the same operational direction in terms of joint advocacy, the capacity of VISTAA in thi regard should be utilized.
16. As it was mentioned above, NGO1 is one of the organizations which has named the joint advocacy initiatives with MoA, moreover, it was one of the main organizations named by the respondents to be incorporated in AA for this purposes. Thus, Oxfam should seek the linkages of AA and NGO1.

Formal relations

4. Unlike informal relationships, the role of ProMedia in the network of formal relationships is decreased, however this is not the case for ICARE, which again forms the separate sub group and connects the AA with number of linkages outside.
5. AWHHEE is another important organization which has its own cluster of formal relationships with very weak connections with AA. The connection between Oxfam and AWHHEE is developed through PCR and then NGO3 in terms of formal relations.
6. GL remains as a bridge to other organizations for AA in case of formal relationships as well, thus the importance of GL as an important bridge for AA should be critically assessed and considered by Oxfam.

Desired network

3. The organizations which were named to be beneficial for the objectives of AA to be connected to the alliance were: MOA, FAO, Shen (www.shen.am), MOE, and MESTD. These organizations and their desired role within the AA should be studied in more details with AA members in order to make sure that the type and the objective of their involvement gives benefit for AA as a whole.
4. It should be also noted that Oxfam also named the large number of organizations, thus the follow up on the reasons and the benefits of those organizations should be brought to AA in order to increase the chances of their engagement in AA before Oxfam's exit.