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Non-Agricultural Rural Activities

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National Agricultural Policy

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Non-Agricultural Rural Activities

Pilot exercise in the selected areas of Syria (two pilot study areas)

Study Objective: Assess the relevance of Non-agricultural Activities in Rural Areas (NARA) for agricultural and rural development and their contribution to policy relevant issues (such as the rural households' income, the resilience of rural households to exogenous and endogenous shocks, and the reduction of migration flows).

NARA Methodology (a territorial asset-based approach)

Rural house-holds (HH) resource endowment within a given context determining the opportunity set of options for livelihood strategies (behaviors), which in turn determine HH well-being outcome.

Major Findings of the Study

NARA characteristics and relevance

- NARAs are heterogeneous (various types, sectors, sizes).
- Linkages (backward and forward) to agriculture were important (supply chains analysis).
- NARAs play an effective role in employment creation in rural areas.
- They have a crucial role in the emergence of small and intermediate urban centres (in rural areas).

NARA effects on rural HHs Income generation

- Income from NARA sources is larger than that from (Agricultural Rural Activities) ARA;
- Waged employment constitutes the major portion of NARA sources of income (government, commerce, construction);
- On-farm originated income represents most of agricultural income.

NARA effects on income distribution among Rural HH (Y decomposition analysis)

- Agricultural rural activities sources of income tend to reduce income distribution inequality;
- NARA sources of income tend to increase income distribution inequality;
- Poor and Non-Poor Rural HH don't benefit equally from NARA (push & pull dynamics).

Ministry of Agriculture and Agrarian Reform



Brief

Non-Agricultural Rural Activities

National Agricultural Policy Centre (NAPC)

December, 2006

Introduction

Rural areas in Syria, likewise other developing countries, are still characterized by agricultural nature and dominated by agricultural activities. Though, farming is no longer being the unique sector that operates in rural areas, other economic functions such as manufacturing, services, tourism etc, would supplement agricultural sector. The diversification of activities in rural areas involves a deep inquiry of the interaction between economic sectors in rural areas, and investigates how they affect each other. In this context, NARA study aimed to achieve the following:

General objective: Contribution to the assessment of the relevance and the nature of non-agricultural activities in rural areas (NARA) of Syria. To do this, two selected areas have been surveyed through Rapid Rural Appraisal method coupled with existing secondary information (studies, secondary data, etc.).

The non-farm (non-agricultural) activities include all economic activities in rural areas except agricultural (farming), livestock, fishing and hunting.

Immediate objective (purpose): assess the relevance of NARA for agricultural and rural development and their contribution to policy relevant issues (such as the rural households' income, the resilience of rural households to exogenous and endogenous shocks, and the reduction of migration flows).

1. Conceptual framework

The conceptual framework of the study based on the territorial asset-based approach, which describes the context within which rural non-agricultural activities are undertaken. Based on this framework, three main factors are identified, which affect the household's livelihood: assets, household strategies, and the context; macro-economic policy.

Based on the sustainable livelihood framework, **household assets** were described taking into accounts the following five types of capital namely: natural (e.g. land, water deficits, and soil fertility), physical (equipment, livestock etc), financial (saving, credit, remittance), human (education, health, skills, and age), and social assets (household participation in different organizations).

The context in which households operate helps determine the welfare-generating potential of assets and prospects for improved well-being. The political, legal, and regulatory contexts affect how assets are managed and whether successful livelihood strategies can be undertaken.

Household livelihood strategies (behaviors) can be thought of as a reflection of its assets management, which refers to the way that household use their assets (e.g. land and labor allocation, investments in education, migration, and participation in social capital building). It includes a range of on- and off-farm agricultural and non-agricultural activities. Asset accumulation and livelihood strategies are important drivers of sustained improvements in well-being.

The asset-base conceptual framework leads us to consider a variety of measures of household well-being and to use quantitative and qualitative analyses. In addition to income and consumption, poor rural households are concerned about food security, health status, vulnerability in general, empowerment and self-esteem, participation in community affairs, environmental quality, and hopefulness toward the future (Narayan et al, 2000).

The asset-based approach takes into account links between households' assets (productive, social, and locational assets); the policy, institutional, and risk context; household behavior as expressed in livelihood strategies; and well-being outcomes. Understanding the household's asset interaction within the context to influence the selection of livelihood strategies is important for poverty alleviation and household growth.

2. Study analytical component and organization of the report

A hybrid approach combining a number of analytical techniques that is likely to deepen understanding of the relationship between assets, policies, and growth potential: graphical mapping techniques, quantitative household analysis, qualitative analyses of household assets and community livelihoods, and related projects. The combination generates a description of Syrian rural economy that recognizes the need for differentiated policies targeting different households and regions.

3. An overview of the Pilot Study Area

This study went over the rural sector in the pilot study areas in two different regions, Homs, and Tartous governorates. Criteria were taken into consideration and adopted in selecting those areas such as geographical variance, agricultural types applied, zone stability and non-agricultural activities that rural people depend on to insure their livelihood strategies. The two districts are characterized by the followings:

- Both regions are in the same stability zone 1 whose rainfall exceeds 350 mm and it is suitable for rainfed and irrigated farming.
- Al-Rasstan Mantika, Homs, is characterized by its plain land, fertile soil, irrigated farm, field crops growing, large land size, agricultural activities, its location at the middle of Syria, and mixed activities of agricultural and non-agricultural activities that population depend on.
- Al—Draikish Mantika, Tartous, is located in the costal mountains, surrounded by mountains and hills, poor soil fertility and rocky land, covered by olive trees, rainfed farming, low agriculture productivity, low agriculture returns, small land size and land fragmentation, and population livelihood dependency mostly is on non-agricultural activities.

Therefore, four villages that have been chosen from the two previous governorates mentioned above to be pilot study for Non-Agricultural Activities in Rural Areas,

which are Al-Ghanto and Al-Mkarramieh in Homs, Jourat Al-Jawamis, and Hbabeh in Tartous.

4. Data set and main finding

4.1 Data set

The data for this pilot study were collected based on interviews with rural households over three missions (field visits). First mission aimed at gathering an overview of the prevailing activities and describing the economic context as well as geographical condition in selected areas. In second mission, household were interviewed to collected primary data on a wide range of topics such as: household general information (the head of household “male or female”, family size, number of adults and children, farm size, etc), household’s assets description, livelihood strategies, and household income sources. The third mission was conducted in order to illustrate the household income uses (expenditure). While the selected areas were chosen purposively, the villages as well as the households were selected randomly. Households were interviewed using household questionnaire, in which household asset, strategies and income were questioned in details. In addition to that, in each round (mission) a village questionnaire gathered information on village infrastructure, ecological conditions, and linkages between village and small center and other districts (*Mantika*).

Given that agricultural incomes face fluctuation year by year, based on climate condition, this issue was rectified by computing the average income of, at least, three years. Both agricultural incomes in kind as well as in cash were esteemed taking into account gross margin of each crop. Self-employment as well as waged-income, whatever source, is presented yearly using Syrian Pound (SP) currency unit. Due to uncertainty about how to calculate the wages of household members who work on

farm and/or non-farm self-employment, the yearly total return to that activity was considered.

Five main sources of income determined household well-being or income categorized as follows.

- Agricultural income includes self-employment or what is called on-farm income that driven from crops and livestock production, and agricultural waged income (off-farm income);
- Non-farm income includes waged non-farm earned from different activities, and profit from self-employment in non-farm enterprises;
- Un-earned income includes incomes derived from sources other than employment.

Total income derived from each source and average income per capita as well as per working day is presented at selected region level and household category (poor and non-poor HH). Then, more focus on each source was undertaken in order to point out the importance of specific activity within each source. A descriptive analysis, however, of income sources using the correlation between different source and total income will be deeply tackled.

4.2 Main finding

Households' asset description

Based on the livelihood approach that concerned with people, it is worth to investigate and assess the household's strengths (assets or capital endowments), and how they use and convert these into positive livelihood outcomes. To do this, *ex ante* categorization of surveyed households have been made adopting two household quintiles, namely poor and non-poor category. This classification aimed at showing the difference in the access level of each class to these capitals using wealth index. Wealth index computation based on the monetary value of household physical assets

(e.g. house, farm, equipment, car, livestock, etc), using the average price of each item prevailed on the market. Then, wealth index per household member was considered, and compared with the poverty line (which was estimated in the poverty study in Syria, 2005). Based on that estimation, households in the sample were classified into poor and non-poor, and then a detailed description of their assets was carried out regarding natural, human, financial, physical and social assets.

5. Household income

Despite significant progress in income diversification of rural households, agriculture is still the principal income source of non-poor households in Homs. In contrast, non-farm waged income reaches 61% of the total income of poor household (Table 1). Agricultural-waged income is important in Homs more than in Tartous, this is explicable based on the land size and prevailed cropping pattern in both regions. Labor-intensive field crops (such as cotton, sugar beet, vegetable) are numerously grown in Homs, which employs much labor for harvest and other agricultural operation. While olive trees the main crop grown in the selected area of Tartous, and family labor usually are able to carry out all agricultural operations. In general, non-farm income sources both self-employment and waged-employment attained the highest share of the total household income. In contrast, un-earned income accounts, at most, for 5% of the total income. More detail on each income source will be examined.

Table-1: Share of HH income sources of the total income

Area	HH type	Income source				
		On farm	Off-farm agri-waged	Non-farm Self Emp	Non-farm Waged-Emp	Un-earned
Homs	Poor	26%	11%	0%	61%	2%
	Non-poor	45%	7%	13%	34%	1%
	Total Homs	40%	8%	9%	41%	1%
Tartous	Poor	23%	1%	11%	60%	5%
	Non-poor	25%	0%	19%	54%	2%
	Total Tartous	24%	1%	15%	56%	3%

NARA field survey

Total income of each source may not reflect the real household well-being when it combines with household size. Annual income per capita is quite more precise indicator in such cases (Table2). Noticeably, non-farm waged employment plays an important role in household member annual income. Though, the productivity (average income per day) of such source is quite less than non-farm self-employment (Table 3).

Table-2: Average income per HH members (SP/year)

Region	HH type	On farm	off-farm	Non-farm Self Employment	Non-farm - Waged	Un-earned
Homs	Poor	3,705	2,135		1,4017	128
	Non-poor	12,117	1,941	5,321	12,123	459
	Total Homs	9,930	1,992	3,938	12,615	373
Tartous	Poor	4,374	229	4,996	17,193	1,788
	Non-poor	6,123	60	6,210	19,570	522
	Total Tartous	5,423	128	5,724	18,619	1,028

NARA field survey

Table-3: average income / days

Region	HH type	On farm	off-farm	Non-farm Self Employment	Non-farm - Waged
Homs	Poor	165	186		399
	Non-poor	343	272	734	429
	Total Homs	308	243	734	419
Tartous	Poor	243	361	146	409
	Non-poor	205	300	256	360
	Total Tartous	218	341	225	379

NARA field survey

5.1 Agricultural income

Data from field survey shows that two main sources contribute to agricultural income: on-farm and off-farm. On-farm activity is still contributing by significant part to the rural households' livelihoods, and is considered as a second source of income. The importance of this source is highly correlated with land size and landownership. In addition, cropping pattern in each selected area plays a significant role in agricultural income contribution. Field cash crops grown in Homs (such as cotton, sugar beet) accounts for 75% of total agricultural income. While trees farming (olive) in Tartous contributes by 60%, about 50% of olive production is produced for home consumption. In contrast, agricultural wages (off-farm income) are quite small,

which contribute by only 8% and 1% of total income in Homs and Tartous respectively.

As intermediate importance of income source livestock have second grade for both groups in the two governorates. Other income sources, i.e. honey production can be found only in Homs-non-poor group and accounts about 5 percent of their total agricultural income. Comparing the relative importance of income sources for both poor and non-poor groups, it is noticeable the higher share of crops returns for the poor compared to the non-poor in Homs and for trees returns in Tartous. The poor in Tartous also capture higher returns from livestock compared to non-poor while in Homs livestock contribute by approximately the same share for both categories. In fact the more dependence of the poor on agriculture can be interpreted by their lack of the required opportunity and capital to perform NARA activities, therefore they are forced to concentrate on the available agricultural resource to achieve their livelihood.

5.2 Non-Farm Income (non-agricultural income)

Recently there is an increasing recognition that rural non- farm/non - agricultural activities (such as commerce, manufacturing, services, governmental) play an essential role in the rural economies. This view is perceived by data gathered from field survey, which illustrate that non-farm income contributes by more than 50% of total income. The share of non-farm income varies between two selected areas. Table 4 illustrates the share of non-farm income of both self-employment and waged-employment as well. Noticeably, non-farm income accounts a significant share of poor households' total income (60% in both regions), while for non-poor household, this income source contributes a higher share of total income in Tartous than in Homs, which is explicable based on the landownership and land size.

Table-4: Share of HH income sources in self employment and waged employment

Region	HH type	Non-farm Self Employment	Non-farm -Waged
Homs	poor	0%	61%
	non-poor	13%	34%
	Total Homs	9%	41%
Tartous	poor	11%	60%
	non-poor	19%	54%
	Total Tartous	15%	56%

NARA field survey

The lack of finance and poor access to credit market in addition to low land return, poor household in Homs are unable to invest in own-business (self-employment). While, lack of education and skills enforce poor households in Homs to work in very low wage jobs from one side, and they cannot start self-enterprise from other side.

5.2.1 Average income per day

The Productivity of non-farm sector varies between self-employment and waged one, and between two regions for self-employment. Table 5 shows the income per day of self employment in Homs is higher than Tartous. Data shows that this phenomenon is because people invest high-capital business in Homs such as small factory for grain processing or work in transportation (vehicle), while, self-employment in Tartous includes small shops or petty trade. In contrast, non-farm waged productivity is quite similar between household type and region, which may be explicable based on number of working days and labor wage that are generally the same.

Table-5: Average Income / days

Region	HH Type	Non-farm Self Employment	Non-farm -Waged
Homs	Poor	0	399
	Non-poor	734	429
	Total Homs	734	419
Tartous	Poor	146	409
	Non-poor	256	360
	Total Tartous	225	379

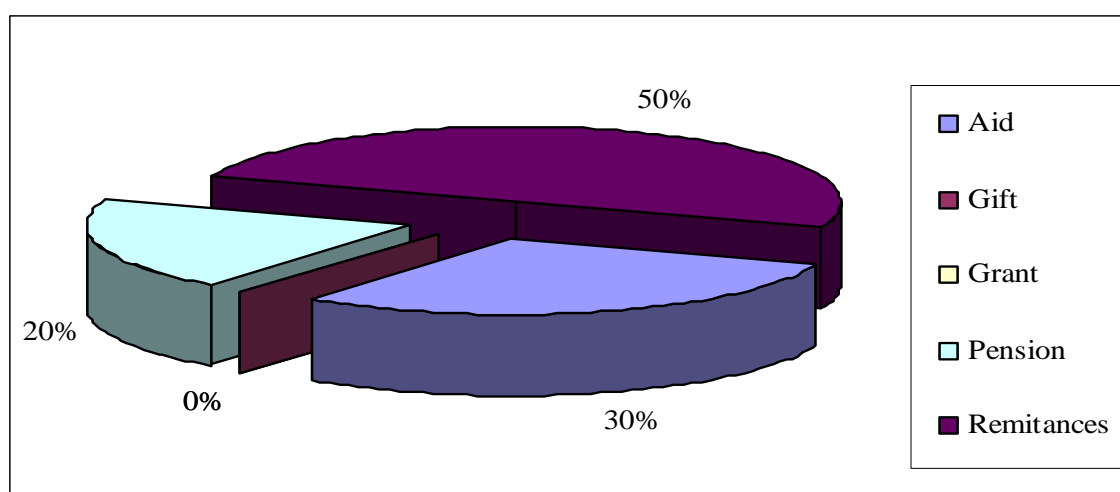
NARA field survey

5.3. Unearned Income

Unearned income is considered one type of NARA sources within the surveyed areas. People, in general, receiving different types of unearned income, which enhance their livelihood from one side and improve their ability to perform other kind in NARA activities from the other side. In addition, different typologies exhibit different share of people receiving unearned source of income, for example 10% of the surveyed poor households in Tartous have remittance while only 3% of the non-poor have the same source of unearned income.

Several different sources of unearned income have been identified within the studied areas. The most important source, as shown in the figure 3.2.11 below, is the remittances “Total funds sent by individuals resident abroad to recipients in their family home”, which account 50% of total unearned income. Other less important sources are aids by 30% and pensions by 20% of the total.

Figure-4: The Share of Different Types of Unearned Income



6. Analytical results

These analyses aimed at identifying the household's key livelihood strategies and its characteristics which are determined by household assets and their endowments. To

do this, different factors were used for analysis and, thus, used as an input for cluster analysis, these factors are as follows:

- 1-Total income from construction work
- 2-Total income from commerce work
- 3-Total income from services work
- 4-Total income from governmental work
- 5- Income from crops production
- 6- Income from Trees production
- 7- Income from livestock production

According to cluster analysis output, two main strategies, in which households are involved in. The first strategy is services and constructions work-based. Second strategy is based on crop as well as livestock as a part time activities and commerce work that related to these activities. Table 6 shows the main characteristics of household in each cluster.

Table 6: Salient household characteristics and key livelihood strategies type

Item	Total Sample	Cluster 1	Cluster 2
Number of HH	100	20	65
Average family size		7	7
Average number of children		3	2
Average land size dunum		9	11.4
Land fertility		medium	good
Education level		low	medium
Importance of agri-income		Low (25% of total income)	Medium (48% of total income)
Importance of non-agri-income		High (71% of total income)	Medium (50% of total income)
Per capita income SP*/ day		94	71
% of poor Households		20%	29%

Source: personal computation based on primary data

Income decomposition analysis

This section decomposes the household income sources. It identifies the contribution of each income source, namely agricultural (both on-farm and off-farm), non-farm (both self-employment and waged employment), and un-earned income to total household income. This decomposition analysis reflects the importance of different

source of rural household income and identifies the income inequality at targeted household level.

Results from GINI coefficient based income decomposition show the following:

- Non agricultural waged employment (WE) has the largest factor inequality weight affecting income distribution (table 7) regardless of HH partition;
- Non agricultural waged employment (WE) has a greater effect on income distribution among poor households than among the non-poor;
- Both waged employment and self employment are income inequality-increasing. They do display relative concentration coefficients that are greater than unity.
- These findings are of paramount importance as to policy implications regarding NARA in Syria.

Table 7: Gini Coefficient Based HH Partition Total Income Decomposition

Item	Label	HH Type	Total annual income (y)	Source Income (y_i)			
				Ag. Income	SE income	WE income	UN income
Average Income (Syrian Pound)	μ	Poor	146.48				
		Non-Poor	211.27				
	μ_i	Poor		32.59	11.91	95.67	6.30
		Non-Poor		75.31	35.79	96.31	3.63
Gini Coefficient of total income	G	Poor	0.33				
		Non-Poor	0.34				
Gini coefficient of source income	G_i	Poor		0.562	0.909	0.486	0.891
		Non-Poor		0.483	0.791	0.562	0.960
Correlation Ratio (btw y_i and Y)	R_i	Poor		0.215	0.537	0.765	0.489
		Non-Poor		0.585	0.544	0.638	0.379
Relative Concentration Coefficient	g_i	Poor		0.368	1.488	1.133	1.328
		Non-Poor		0.821	1.250	1.042	1.056
Factor Inequality weight	$w_i * g_i$	Poor		0.082	0.121	0.740	0.057
		Non-Poor		0.293	0.212	0.475	0.018
Sum $w_i * g_i$		Poor	1.0				
		Non-Poor	1.0				

Key:

HH: household; Ag. : Agricultural; SE: self employment; WE: waged employment, UNE: unearned income. w_i, g_i : factor inequality weight, where $w_i = \mu_i / \mu$ and $g_i = R_i * G_i / G$, with $R_i = \text{cov}(y_i, r) / \text{cov}(y_i, r_i)$, r and r_i being total income and source income ranks respectively.

7. Study Major Findings

NARA characteristics and relevance

- NARAs are heterogeneous (various types, sectors, sizes).
- Linkages (backward and forward) to agriculture were important (supply chains analysis).
- NARAs play an effective role in employment creation in rural areas.
- They have a crucial role in the emergence of small and intermediate urban centres (in rural areas).

NARA effects on rural HHs Income generation

- Income from NARA sources is larger than that from ARA,
- Waged employment constitutes the major portion of NARA sources of income (government, commerce, construction)
- On-farm originated income represents most of agricultural income.

NARA effects on income distribution among RHH

- Agr. RA sources of income tend to reduce income distribution inequality
- NARA sources of income tend to increase income distribution inequality
- Poor and Non-Poor RHH don't benefit equally from NARA (push & pull dynamics).

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