DISCUSSION PAPER

Leibniz Institute of Agricultural Development in Central and Eastern Europe

DOES NON-FARM INCOME DIVERSIFICATION IN NORTHERN ALBANIA OFFER AN ESCAPE FROM RURAL POVERTY?

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ABSTRACT

The paper uses up-to-date household data from two Northern-Albanian regions. It summarises socio-economic facts on taking up remunerative non-farm employment and identifies the determinants of non-farm income diversification at the farm household level based on a binary logistic regression. Furthermore, the paper provides insight in the northern-Albanian farming structure, migration patterns, attitudes towards and reasons for income diversification into the non-farm sector. Income diversification indeed has a positive impact on the welfare of the households: A statistically significant increasing trend in incomes with rising diversification level was observed.

ZUSAMMENFASSUNG

STELLT AUßERLANDWIRTSCHAFTLICHE EINKOMMENSDIVERSIFIZIERUNG EINEN AUSWEG AUS DER ARMUT FÜR LANDWIRTSCHAFTLICHE HAUSHALTE IN NORDALBANIEN DAR?

Dieser Beitrag fasst mit Hilfe von aktuellen Haushaltsdaten aus zwei nordalbanischen Untersuchungsregionen das sozioökonomische Umfeld und insbesondere die einkommenschaffenden Tätigkeiten im außerlandwirtschaftlichen Sektor zusammen. Eine binäre logistische Regression zeigt die maßgeblichen Einflussfaktoren außerlandwirtschaftlicher Einkommensdiversifizierung auf der Ebene landwirtschaftlicher Haushalte. Außerdem gibt diese Arbeit Einsicht in die Agrarstruktur Nordalbaniens, Merkmale der dort vorgefundenen Migrationsmuster, die Einstellungen zu und Gründe für die außerlandwirtschaftliche Einkommensdiversifizierung. Die Analyse zeigt einen positiven Einfluss von Einkommensdiversifizierung auf den Wohlstand der Haushalte: Es konnte ein statistisch signifikanter Trend bestätigt werden, der zeigt, dass mit steigendem Diversifikationsniveau das Haushaltseinkommen steigt.

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LIST OF ACRONYMS

BMZ	Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung
CEECs	Central and Eastern European Countries
CIS	Commonwealth of Independent States
DFID	Department for International Development
EU	European Union
GDP	gross domestic product
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
IMF	International Monetary Fund
IMF	International Monetary Fund
p.a.	per annum
PPP	Purchasing Power Parity
RNF	rural non-farm
SLC	sustainable livelihood concept
UNDP	United Nations Development ProgrammeLista skrótów

1   INTRODUCTION

The western Balkan countries, heading for the European Union (EU), face tremendous challenges in the fundamental restructuring of their economies. This is mainly due to the fact that the farming sector is still a major contributor to the gross domestic product (GDP) and that hidden unemployment is a wide-spread phenomenon of farm households. Hence, structural change, including the release of a considerable share of the workforce is necessary to improve efficiency and productivity in the farming sector. In order to turn these developments into a positive impulse for rural areas and thus fostering their economic development, a viable non-farm sector is essential (LANJOUW and LANJOUW, 1997). The diversification of income is not only crucial for regional development, but also for the farm households that wish to smooth their income risks and increase their welfare.

Albania, despite being classified as a developing country and having the status of the poorest Balkan country, intends to become part of the EU[1] (WORLD BANK 2007, IMF 2007). The country's farming sector contributes 23% to GDP and 58% of the workforce are employed in agriculture (BERIÉ, 2007). The average farm size is only 1.1 ha (MINISTRY OF FOOD AND AGRICULTURE, 2002). Thus, economic growth and restructuring of the farming sector are urgently needed.

The major objective of this paper is to offer a unique and detailed insight into the socio-economic conditions of two selected areas in northern Albania. Determinants of non-farm income are identified and evaluated in terms of their underlying demand-pull or distress-push motives. This allows to deduct conclusions on whether the observed diversification processes are welfare enhancing or keep farmers in the so called 'poverty trap' (BARRETT and REARDON, 2000).

1   RURAL NON-FARM DIVERSIFICATION

"Diversification is the norm" and it is ubiquitous (BARRETT and REARDON, 2000: 1 ff). A household deriving income only from one single source, activity or asset or that holds its wealth only in one form of asset is very rarely found in reality because such a concentration increases the risk of destitution. A common strategy reducing the risk of income loss is to diversify into the rural non-farm (RNF) economy. The RNF economy comprises "all economic activities in rural areas except agriculture, livestock, fishing and hunting" (LANJOUW and LANJOUW, 2001: 3). Non-farm diversification is one of the livelihood strategies evolving from the Sustainable Livelihood Concept[2] (SLC).

As it is frequently stated in literature on the RNF economy, terms are used in an imprecise manner (e.g. BUCHENRIEDER, 2005; START, 2001b; BARRETT and REARDON, 2000; BARRETT et al., 2001). The terminology used here, is firstly based on a sectoral differentiation between farm and non-farm activities and income. Non-farm activities are all activities which are not directly linked to agricultural production, i.e. activities of the second and tertiary sector: manufacturing and services. Secondly, rural livelihood diversification is spatially opposed to urban livelihood diversification. Thirdly, income diversification at the household level may imply either a multiplicity of activities within sectors (e.g. farm diversification) or an increasing mix of activities among sectors (e.g. the combination of farm and non-farm activities). This discussion paper focuses on the increasing mix of household activities.

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[1]   Albania has signed in June 2006 the Stabilisation and Association Agreement with the EU. This agreement intends a tight political dialogue and the possibility of creating a European free trade zone. Moreover, it is the basis for further negotiations about a possible future EU accession of Albania.

[2]   For further information on the Sustainable Livelihood Concept refer to DFID (1999): "Sustainable livelihoods guidance sheets" available on http://www.livelihoods.org. An extension and application of this approach with regard to non-farm diversification issues can be found in BUCHENRIEDER and MÖLLERS (2006).

Income diversification into the RNF economy is one of the three livelihood strategies within the SLC.[3] This concept principally aims at facilitating the knowledge creation in order to draw recommendations for reducing poverty through improving and stabilizing households' livelihoods. Within this context a livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living: a livelihood is sustainable when it can cope with and recover from stress and shocks and maintain or enhance its capabilities and assets, both now and in future, while not undermining the natural resource base (CHAMBERS and CONWAY, 1991). In its application the SLC aims at picturing every dimension of development: the educational, the social, the environmental, the economic and the political/ institutional dimension (DFID, 1999). It is a people-centred, holistic and dynamic approach to rural development and aspires to sustainability in all dimensions of development. The concept is highly up-to-date and applied by several multilateral, governmental and non-governmental development agencies. "The livelihood approach seeks to promote choice, opportunity and diversity" (DFID, 1999).

The process of deciding to diversify is made up of six elements (see Figure 1). The first element is the vulnerability context. It is the background against which the decision to diversify is taking place. It describes shocks, trends and seasonality and is least in the sphere of influence to the decision making household. The vulnerability context predetermines the second element of the SLC: the assets available to the household; assets may be financial, physical, natural, social, or human. Analysing the so-called asset pentagon helps understanding the strengths of a household and identifying possible diversification strategies. The livelihood assets are applied within the framework of structures and institutions, the third element as depicted in Figure 1. Institutions, organisations, policies and laws shape the livelihoods, thus obstacles and steppingstones can be identified in this element of the concept in order to single out a suitable path leading to a sustainable livelihood. Depending on the asset endowment and the structures and institutions given, the type of motivation predetermines the nature of a chosen diversification strategy. The two types distinguished under this fourth element of the SLC are distress-push led and demand-pull led motivation. Both of them will be further elaborated later. The diversification strategies available depend on the different objectives of the household. As fifth element of the concept they are described as risk minimisation, coping with the current situation, enabling the finance of present activities, accumulation of capital, and labour allocation. With regard to the individual decision making process on which the livelihood strategies of the SLC are based, Figure 1 additionally refers to the theory of planned behaviour developed by AJZEN (1991). It describes three key factors that determine decisions. They are closely interlinked with the elements of the SLC. Beside the control a person has over his or her behaviour (e.g. due to asset access) and normative beliefs that influence behaviour, attitudes play a key role in AJZEN'S theory. Attitudes are built on the assessment of positive or negative outcomes of behaviour.[4] Hence, positive expectations lead to a positive attitude towards non-farm employment and foster the decision making process towards tapping non-farm income sources. Finally, livelihood outcomes consist optimally in an increase in income and livelihood standard, food security, improved health care and education and sustainable use of natural resources.

Obviously, all elements of the concept presented in Figure 1 interact among each other. Positive livelihood outcomes lead to an amelioration of the asset endowment of the household and decrease its vulnerability. The structures and institutions in the surrounding of the households shape also the vulnerability of the household and options for using the assets available, e.g. a stable political development towards democracy facilitates prosperous economic activity.

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[3]   SCOONES (1998) identifies three general categories of livelihood strategies: (1) Agricultural Intensification or extensification, (2) livelihood diversification and (3) migration.

[4]   For further details on the theory of planned behaviour refer to the original articles by AJZEN (1985, 1991).

Figure 1: Syntheses of theoretical approaches to income diversification decision making in rural areas
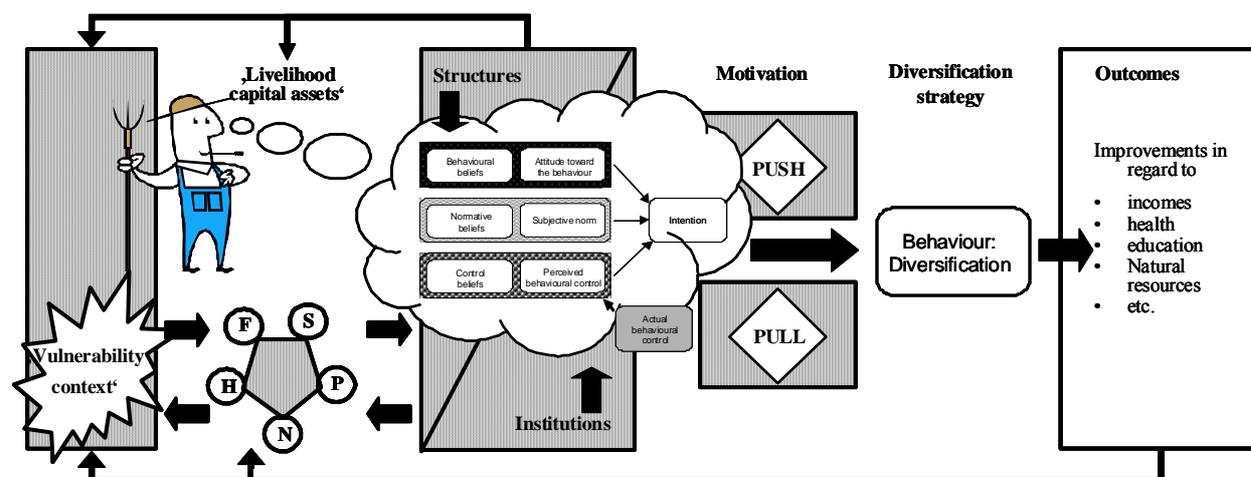
Source: MÖLLERS (2006).

Looking at the incentives for income diversification, as it was mentioned earlier, two different categories have been singled out: distress-push and demand-pull variables (REARDON et al., 2007; MÖLLERS and BUCHENRIEDER, 2005; BARRET et al., 2001). These variables are, on the one hand, predetermined by the socio-economic situation of the household and the respective diversification strategies available. On the other hand, they strongly influence the outcome of diversification. While households driven by distress-push incentives are passively pushed into diversification, households, in which demand-pull incentives dominate, actively chose to access additional income sources in order to fulfil higher consumption wishes. Distress-push diversifiers aim at risk minimisation, thus destitution avoidance, very often ex-post to shocks, whereas demand-pull diversifiers want to maximise profits. In the diversification process different developments have been observed across the push- and pull-motives for diversification: poor households with lower asset endowment and limited risk bearing capacities take up activities that are only little remunerative, often even menial and exploitive, and generate only marginal additional income. BARRETT and REARDON (2000: 9) refer to this situation of the poorest households as 'poverty trap' as it is very difficult to escape from lack of assets and the resulting lack of investment and working capital. Asset richer households are able to take up activities that enable further capital accumulation and reinvestment either in the farm or non-farm sector. Market imperfections and hidden unemployment typically provoke distress-push diversification (DERCON, 1999). Demand-pull diversification is often a response to evolving markets and technological opportunities (BEZEMER et al., 2005). The level of education plays a key role in the diversification process (DAVIS, 2003). It is obvious that a higher level of education offers a wider range of employment opportunities. Consequently, socio-economic circumstances have the strongest influence on diversification outcomes. To induce the virtuous circle of rural development demand-pull incentives are essential. Table 1 presents examples for distress-push and demand-pull variables based on MÖLLERS and BUCHENRIEDER (2005).

Table 1:   Demand-pull and distress-push variables

	Factors associated with the traditional agricultural sector and the household	Factors associated with the rural non-farm sector including other external constraints
Pull-factors	• Education level, skills, knowledge, etc that motivate to enter attractive jobs in the non-farm sector • Positive attitude towards working and/or living in town • Higher prestige associated with NFRE as compared to farming • Existence of social networks facilitating diversification by reducing costs	• Higher wage rate in non-farm sector • Labour demand in non-farm sector • Optimistic rural business environment • Appropriate infrastructure, e.g. roads, schooling, vocational training network • Information availability • Efficient land and credit market • Existence of rural development plans/projects/programmes
Push-factors	• Inefficient access to land and low land productivity, small farm size • Generation conflict • Large family size with many dependent family members • Low farm labour productivity • Lack of self-financing capability for farm investments • Negative attitude towards farming and rural livelihoods • Covariate (e.g. natural disasters) and idiosyncratic (e.g. illness of family member) shocks, price shocks • Inefficient land and credit market	Constraints to distress-push diversification: • Less favoured market structures and high unemployment rates • Lack of infrastructure • Inefficient institutions • Legal and cultural barriers, norms • Lack of livelihood capital assets, which facilitate diversification

Source: Adapted from MÖLLERS and BUCHENRIEDER, 2005.

2   THE STUDY AREA OF NORTHERN ALBANIA

Before going into detail on the study areas in Northern Albania, some general information on the present economic situation is highlighted. Rural non-farm income diversification takes place against this background, thus a general understanding of the environment for agricultural production is needed.

Albania's present economic situation

Albania is with 5,316 PPP-US$ (Purchasing Power Parity) per capita[5] in 2005 the second poorest country in Europe (UNDP, 2007). According to the World Bank, it belongs to the group of lower middle class income countries and is consequently a developing country (WORLD BANK, 2007a). The Human Development Index for Albania is 0.801 showing that the country is in the midway of human development and has still great potential to improve living standards (UNDP, 2007).[6]

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[5]   GDP per capita (PPP US$) divided by midyear population. GDP is the sum of value added by all resident producers in the economy plus any product taxes (less subsidies) not included in the valuation of output. It is calculated without making deductions for depreciation of fabricated capital assets or for depletion and degradation of natural resources. Value added is the net output of an industry after adding up all outputs and subtracting intermediate inputs. PPP (purchasing power parity) is a rate of exchange that accounts for price differences across countries, allowing international comparisons of real output and incomes. At the PPP US$ rate, PPP US$1 has the same purchasing power in the domestic economy as US$1 has in the United States (UNDP, 2007, p. 366 and 369).

[6]   The Human Development Index is computed every year by the United Nations Development Program (UNDP). It comprehends three dimensions of human development: long and healthy life, level of education and level of living standard. The index ranges between 0 and 1, 0 indicating the lowest human development level and 1 the

In 2005, 10% of the population had a maximum of 2 PPP-US$ per day to make their living. Thus poverty reduction is a big issue on Albania's policy agenda for the next years; the problem is more severe in rural areas than in urban areas (WORLD BANK, 2007b; MACOURS and SWINNEN, 2007).

In 2007, Albania's GDP was at about 8,380 million US$, to which remittances from outside the country contributed 13% (WORLD BANK, 2007a). The contribution of the agricultural sector to overall GDP is 23% (BERIÉ, 2007), once more indicating the backwardness of the country's economy. Despite promising growth rates, and increasingly sound financial policies, leading to the lowest inflation rate since the introduction of market economy in 2004 with 2.2% (GRÜNDEL, 2005), the country still lags behind the other Balkan countries on a GDP per capita basis.[7]

One major issue is the existence of hidden unemployment. In 1999 the unemployment rate was estimated officially at 16%, while unofficially it was thought to be at 30-40% (BARATTA, 2000). In remote areas the situation is even worse and improves only slowly. For 2006, the official statistics state unemployment at a rate of 13.8% (BERIÉ, 2007). Differences between official statistics and the actual situation can be explained by a lack of appropriate data and a high share of hidden unemployment mainly in the farming sector, in which the majority of active workforce is officially engaged in (58%, figure for 2005, BERIÉ, 2007). Labour intensive agricultural production is the key income source of rural households in Albania (MACOURS and SWINNEN, 2007).

Officially, more than 1.7 million people, more than half of the Albanian population, live in farm households (WORLD BANK, 2007a). After the collapse of the socialist regime, the land was redistributed on a per capita basis to the rural population at the beginning of transition, leading to a high fragmentation of land with a national average farm size of 1.1 ha. Albania's small structured agriculture is at a low level of productivity and efficiency. However, the preconditions for agricultural production are generally good: fertile soils, sufficient precipitation and the Mediterranean climate would allow for satisfactory yields. Throughout the country, forage dominates plant production; in mountain areas hardly anything else is produced. In the lowlands cereal and vegetable production is also important, but compared to the EU yields are very low.[8] Ninety percent of the farm households keep livestock, mainly cattle and poultry. But also milk and meat production are small scaled, at a low level of efficiency and productivity and not competitive with EU level.[9]

Annual cash income from farming on average reaches only 1,036 EUR (GTZ and BMZ, 2006). Primary goals in farming are fulfilment of family needs and minimising economic risks. However, 21% of the farm households cannot meet their basic subsistence needs. The existence of a considerable number of subsistence oriented farmers on the edge of poverty constitutes the basis of the phenomenon of rural migration in Albania. According to the MINISTRY OF AGRICULTURE AND FOOD (2002) only 15% of the farms could be considered economically viable and competitive in market economy.

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    highest. In 2006 Norway is ranked with the highest Human Development Index at 0,965 and Niger with the lowest at 0,311 (UNDP, 2006).

[7]   Compared to Bosnia and Herzegovina 2,700US$, Bulgaria 3,450US$, Croatia 8,290US$, Macedonia 2,830US$, Montenegro and Serbia 3,220US$, and Slovenia 17,440US$ (all figures from 2005, BERIÉ, 2007).

[8]   For example, average yields in cereals were at 34.6 dt/ha in 2005 in Albania including grain maize and corn-cob-mix. In Germany for instance, the average yield in cereals was 65.6 dt/ha (2005) excluding grain maize and corn-cob-mix, which means that including these two would even increase the average yield per hectare (MINISTRY OF AGRICULTURE, FOOD AND CONSUMER PROTECTION, 2006; I.M.A., 2006).

[9]   On average an, Albanian farm has 20.9 heads of poultry and 2.3 heads of cattle. An Albanian cow produces 2,163 kg of milk p.a., EU cows in high performance outreach 10,000 kg per lactation (own calculations based on MINISTRY OF AGRICULTURE, FOOD AND CONSUMER PROTECTION, 2006).

Roughly one third of the Albanian farm households receive income from non-farm activities. More than 50% of these households earn more than 800 EUR per annum in the non-farm sector. In the plain areas 40% of incomes were earned in non-farm activities in 2002, whereas in the hilly areas this figure increases to 68%. Generally, the non-farm contribution to overall income is tremendous for the mountain areas, where 94% of all incomes are earned outside the agricultural sector (MINISTRY OF AGRICULTURE AND FOOD, 2002).

Another income source of particular importance for Albania is remittances from international migration. In 2007, 13% of rural households' incomes came from private transfers. Almost one quarter of all farm households receive money from absent family members working outside the country. For 60% of these households the contribution to income from remittances (1,600 EUR) is higher than the mean income from agriculture (1,475 EUR). Predominantly, young, dynamic, better educated, and male adults migrate, preferably abroad (GTZ and BMZ, 2006; MACOURS and SWINNEN, 2007).

The research areas: Shkoder and Kukes

In the focus of this study are two northern Albanian areas: the district of Shkoder and the prefecture of Kukes. The north of the country generally lags behind the rest of the country in terms of economic and social development. Differences are nonetheless reflected in the choice of the researched areas: While Shkoder, in the coastal west, is characterised by the peri-urban and -compared to the north-east of the country- wealthy surrounding of the city of Shkoder, Kukes is a remote, mountainous area which is considered as rather backward in all terms of development. This brings along differences in topography and climate, but also in agricultural production patterns, hard and soft infrastructure endowment, accessibility of the areas, transport costs, marketing possibilities for products, available and financially capable clientele, gender patterns within the households, non-farm employment possibilities, etc.

Generally, farmers in Kukes are less endowed with land and infrastructural and other assets, have substantially lower incomes, families are bigger, and dependency ratios are higher, conditions for farming such as climate and soil quality are less favourable, the wage level is lower, and the non-farm sector is less developed (BEKA, 2007; GTZ and BMZ, 2006; GIENCKE et al., 2004). The town of Shkoder with its 82,000 inhabitants offers good marketing opportunities to the farmers in the region, while the population in Kukes is not sufficiently connected to an urban environment. Non-farm employment opportunities are at an alarmingly low level in Kukes: industry, may it be food processing or of any other kind, is inexistent here and public institutions are the major employers. The situation is better for Shkoder where dairy plants and bakeries as well as other industrial production sites emerge.

The high level of unemployment is striking in both areas: 29% in Shkoder and 34% in Kukes (BEKA, 2007). One may speculate about disguised unemployment in agriculture especially in Kukes keeping in mind the desolate employment situation in the non-farm sector and a very high share of work force engaged in the primary sector.

With a high economic hardship of rural life, the attitude of the farmers towards farming is lower in Kukes compared to Shkoder and other Albanian regions where the prospects of agriculture are better (GIENCKE et al., 2004). Thus, it is not surprising that Kukes is also stronger affected by out-migration than Shkoder. From 1989 to 2001, 27% of the population of Kukes officially migrated inside the country compared to only 5% in the prefecture of Shkoder. For international migration reliable figures are hard to obtain as it predominantly takes place under the curtain of illegality. Many migrate informally, either by crossing the mountains into Greece, or via smuggler boats to Italy (GERMENJI and SWINNEN, 2005). Mainly male, single, aged 20-35, educated and dynamic persons migrate inside or outside the country leaving the elder, less productive groups as

well as women in their home regions (GTZ and BMZ, 2006; GERMENJI and SWINNEN, 2005). This, on the one hand, bears the risk of a collapse of institutions as well as economic and social activities, while, on the other hand, the transfers are vital for the everyday life of the families who remained at the homestead.

3 METHODOLOGY

The main aim of this paper is to gain new insights into the socio-economic conditions of farm households in northern Albania and to single out the determinants of non-farm income diversification, and to investigate whether distress-push or demand-pull incentives dominate. It is theoretically based on the SLC as well as the extended approach referring to the non-farm diversification strategy presented by BUCHENRIEDER and MÖLLERS (2006) (see Section 2). The data is derived from structured interviews that were conducted in northern Albanian farm households between April and May 2007 in order to understand from which sources income is obtained and which determinants influence the decision making of incorporating an additional income source to the overall household income.[10] The sample contains 160 households which were selected with the help of experienced members of staff of the regional agricultural administration in the two study areas under the premise of achieving an average in farm size after all. This target could not be fully achieved: the poorest households could not be included in the sample due to cultural circumstances, e.g. the duty of hospitality including catering for guests. Seventy-eight of the interviewed households are situated in the region of Kukes and 82 in the district of Shkoder. The initial questionnaire was developed by MÖLLERS (2006) and was adapted to the purposes of the study and the study areas. It allows capturing

- All types of farms: full-time farming households, part-time farming households with self-employment or dependent employment for at least one member;

- The production patterns of the farms;

- All sources of income: earned and non-earned, including remittances from absent household members and all types of assets;

- Socio-economic and demographic characteristics of the households.

For descriptive analysis, the Shannon Equitability Index was chosen. While the main focus is on *non-farm* diversification, the Shannon Equitability Index is used for measuring the *overall* diversity of income at household level. It takes into account two dimensions of diversification: the number of income sources and the evenness of their distribution. The index increases with higher diversity from zero to one (SCHWARZE and ZELLER, 2005). The compilation is divided into two steps:

First step: $H_{income} = -\sum_{k} p_k \ln p_k$

Second step: $E_H = \dfrac{H_{income}}{\ln S}$

with the relative share of income p of k income sources and the total number of income sources S.

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[10] The primary data for this paper was collected for the fulfilment of a Master degree in agricultural economics in collaboration with the Leibniz Institute of Agricultural Development in Central and Eastern Europe (IAMO): MEYER, W. (2008): Income diversification of farm households in Albania, Master thesis accepted at the University of Hohenheim, Stuttgart.

The econometric analysis aims at singling out the characteristics of a typical farm household taking the line into non-farm income diversification either in non-farm waged or self-employment or in migration or a combination of the three of them, and second to single out the determinants of 'successful' diversification. In order to achieve this deeper understanding of the determinants of non-farm diversification and the income contribution of non-farm sources to the overall annual household income a binary logistic model is used. As dependent variable a dummy variable was chosen, which indicates whether a household derives more than 50% of its income from non-farm sources. A range of four possible income sources (income from farming, from remittances, from waged and from self-employment) lead to an equal distribution of income across the sources when each source contributes with 25%. As the diversification process starts from farming we consider a share of 50% of income from non-farm sources as the threshold reducing the households' vulnerability to income fluctuations in the farm sector.

It is reckoned – as suggested by theory – that socio-economic circumstances of the household, for instance household size, number of economically dependent household members, educational level, income from farm and non-farm sources, location of the farm, farm size, production assets and possibilities, risks in production, quality of infrastructure, access to information and finance etc., are the main key points in taking up non-farm employment. Moreover, attitudes towards different types of employment are considered as well as the mere existence of non-farm employment opportunities. A household, which is rich in children, is supposedly reliant on additional non-farm income sources in the study areas. The potential of a household to engage in the local non-farm sector increases with the number of active male family members. Furthermore, higher education advances the probability of higher returns to labour in the farm and non-farm sector. If the size of the family farm is large enough to generate sufficient income for satisfying the economic needs of the household and the household head is enthusiastic about farming, tapping additional income sources outside agriculture becomes rather unlikely. Moreover, the marketing possibilities and wishes of farm products are crucial. The more a farmer can sell of his produce the lower the need to engage in the non-farm sector.

Out of the 160 households interviewed, 99 tap non-farm income sources (this is 62% of all households, 66% of the households in Shkoder and 58% of the households in Kukes). Forty-four of these households earn more than 50% of their income from non-farm sources.

In Table 2 the dependent and independent variables used in the binary logistic are described. There are a couple of variables which are thought to be of major interest in the context of successful income diversification, but are not included in the final model, because they were not significant. These are, for example, access to credit and infrastructural endowment, the incidence of bad harvests and the main crops grown, as well as the ratio of active male to female household members.

Table 2: Variables used in the estimation of the level of income diversification with more than 50% of income from non-farm sources

Dependent variable	Description
Diversification dummy	Dummy variable = 1 indicating whether a household draws more than 50% of its total income from non-farm sources including local waged or self-employment and remittances, excluding social transfers; otherwise = 0
Independent Variables	**Description**
Gender ratio	Ratio of active male to female household members (aged 16-64 years)
Agricultural education	Highest level of agricultural education in the household (0 = none, 1 = only short courses, 2 = vocational school, 3 = professional secondary school, 4 = professional college, 5 = (Post-) Graduate Studies in any non-farm profession)
Professional education	Highest level of non-farm professional education in the household (1 = only short courses, 2 = agricultural vocational school, 3 = agricultural secondary school, 4 = agricultural college, 5 = (Post-) Graduate Studies in agriculture)
Dependency ratio	Dependency ratio in household, i.e. number of household members aged 0 to 15 and above 64 years divided by the number of household members aged between 16 and 64
Total land	Total surface of arable land owned by the household (includes pastures and meadows) in ha
Sales level	Share of agricultural produce sold by the household in percent (estimated by the respondent)
Attitude towards farming	Attitude of the household head towards agricultural activities; rating from 1 (very positive) to 5 (very negative)

4 EMPIRICAL RESULTS

Detailed descriptive results on household demographics, farm characteristics, aims in farming, infrastructural endowment, diversification of income in absolute and relative terms, the attitudes of the respondents towards different income sources, and the reasons behind opting for a certain diversification strategy are provided in this chapter. A binary logistic regression highlights the determinants of non-farm diversification decisions.

Household demographics

The households in the study areas are with on average 5.8 members living together relatively large. Average age in the households is only 31 years. The number of economically dependent members; i.e. children and elderly people is high: Each active household member has to support 0.65 dependent household members.[11] The dependency ratio in the study area is especially high in areas where infrastructure is weak. This is presumably due to the fact that in these areas families still live the traditional way of life meaning that many sons is a status symbol and a provision for the parents' old age. Generally, in remote Kukes the dependency ratio is higher than in Shkoder (0.73 compared to 0.58).

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[11] Dependent family members are those aged younger than 16 years and older than 64. All others belong to the active work force. In similar studies, TRAIKOVA (2005) found household sizes of 3.5 to 4 household members for rural Bulgaria. The average age of all household members lies close to the forties. MÖLLERS (2006) reports an average household size in rural households of 4.4 members in Macedonia and 4.7 members in Slovenia. In both countries the dependency ratio was 0.69.

As education was rated highly in communist times and as the education system reached every social stratum, the basic education level is relatively well established in Albania. Primary and secondary schools are found in every rural city, and almost 60% of the people in the sample have finished secondary school. About one fifth has a college degree, whereas only 5% graduated from university. However, the quality of education is rather doubtful. Particularly farmers in Kukes complain about the quality of education in rural areas and prefer to send their children to colleges in Tirana. Higher education is offered mostly Tirana. It is thus linked with transport costs and costs for living and lodging additional to the expenditures for tuition fees, books and other teaching materials. As money is the limiting factor in many households, the share of academically educated people is low in Shkoder and even lower in Kukes.

Professional training, may it be in the farm or non-farm sector, is uncommon. The vast majority of the people does not have any vocational education. Knowledge of farming practices is usually passed on from one generation to the next, especially in the remote areas of Kukes. However, as agriculture was collectivised under communism, this knowledge was lost to a great extend resulting in a lack of production experience at the time of redistribution. 77% of the people in the sample do not dispose of any kind of agricultural education. This could obstruct the diffusion of new production techniques which would raise efficiency and possibly contribute to more sustainable farming practices. Among those with agricultural education the group with experiences from state owned farms in socialist times is the biggest. Only 11% of the sample attended an agricultural college or university. Non-farm professional education includes all types of training not directly linked to the production process of agricultural goods. Considering the humble state of northern Albanian farms, skills in the non-farm sector enable households to diversify their incomes and to be less vulnerable to price changes or to losses in returns due to bad harvests. But only a minority of 6% of the farm household members in Shkoder and 16% in Kukes have such skills. The difference across the two areas might be partly explained by the far lower farm income level in Kukes, which forces these farm households to obtain additional income which is easier to access with a higher level of education and skills. Roughly, one quarter of the people with professional education are trained for public employments like teachers, soldiers and electricians in public electricity supply. Most non-farm jobs, however, are done without a specific professional education.

In Kukes technical professions dominate the non-farm professions such as tailors, car mechanics and construction workers. Also jobs in the transport sector as a driver of a truck or mini-bus is popular. In Shkoder we find more people in academic professions. Economists, veterinaries and lawyers have been registered. Gender aspects are considered as an important determinant of diversification into RNF employment. Indeed, in rural Albania the discrimination of women is a heavy impediment to successful diversification. Women participate far less in any type of professional education or employment. Only 34% of the professionally educated registered in the interviews are women. With or without education as well as with or without employment, their situation is characterised by the dependence on their husbands' good will. In the traditional roles' allocation of Northern Albania, male household members are the decision makers. Women are most often neither able to perform a remunerative non-farm employment for their own purse nor to contribute to the household's cash income.

Infrastructure

The infrastructural endowment is generally poor in Albania and even worse in rural areas. Thus, it is a major factor influencing the livelihood opportunities of rural households. Road conditions are difficult especially towards Kukes, with mostly dirt roads, but a new highway to Kosovo is currently under construction. Even rural roads in Shkoder are generally in a much better condition.

Consequently, farmers have less difficulty in transporting their produce to urban areas with a sufficient pool of consumers.

Although the average distances from the homestead to the next market place are roughly the same in Kukes and in Shkoder (about 9 km), the number of consumers at the respective market places is certainly different. As the population density and the share of urban population are much lower in Kukes, the market places are far less frequented here. Hence, Kukes farmers have less potential in selling their produce.

Even if mobile telephones and television are ubiquitous in Albania, interruptions occur frequently due to insufficient electricity supply. Less than 10% of the households in Kukes have steady electricity supply which strongly limits their capabilities of cooled storing of produce, food processing, and using machinery for other income generating activities. This holds true for about half of the Shkoder households. Landline telephones are rare in both areas and thus the use of internet is strongly restrained. Access to general information is mainly focussed on television; households with subscribed newspapers are rare in Kukes, but frequent in Shkoder. The same holds true for press specialised on agricultural topics: it is practically not read by the households in Kukes, while roughly 15% of households in Shkoder do so. Anyway, much of new production methods or information on the market situation of agricultural products is done by word-of-mouth recommendation depending on the social networks of the farmers. Consequently, the access to general and agricultural information is limited acknowledging the challenge in making up the even bigger leeway accessing information in Kukes.

Agriculture

Agriculture in the study area is carried out in the context of limited resources. All production assets, may they be of material or immaterial type, are scarce. The only factor which is more than sufficiently at hand is labour. Consequently, the farms are small-scaled, much of the work is done by hand, the quality of the harvest depends on the quality of the own seeds, and loss of livestock is a big threat to the households' livelihoods.

Typically, farm households in the study area are characterised by a mix of crop production and animal husbandry. On average a farm in the study areas works on 1.29 ha of land (Kukes: 1.48 ha, Shkoder 1.11 ha), grows fodder crops like hay and alfalfa, and cereals like corn and wheat, besides vegetables and fruits. It has a small number of cattle and some poultry, mostly chickens. The land market is stale; in the sample only three households rent in land. In mountainous Kukes the inclination of the land is a problem causing nutrient leaching and land slides due to soil erosion. Another problem touching also Shkoder is the lack of water, which was mentioned by virtually all households. Without irrigation plant production is difficult in the area. While in Kukes it is difficult to access water even for domestic use in some areas, irrigation of fields is frequently found in Shkoder.

The market orientation of the farms varies across the two areas: The households in Shkoder sell with more than 60% on average significantly more of their produce than their fellows in Kukes (40%). Three households in Shkoder and 8 households in Kukes (which is roughly 10%) stated not to sell any of their products, but produce only for their own consumption. However, only one of these subsistence farms does not receive non-farm income. Generally, the intention to sell is present throughout both regions. But also here a difference can be found: more than 90% of the Shkoder farmers have the intention to sell more in the next years, less than 80% do so in Kukes. Clearly, this is attributable to the fact that households are on average bigger and income is lower in Kukes. Despite the need to earn cash revenues from sales to buy market goods, it is difficult for them to sell larger shares of the produce as the own consumption is comparably higher and markets are distant and clients, who do not grow vegetables in their gardens, rare.

Migration

The study areas are strongly affected by migration. The absence of household members, who are temporarily working or studying abroad or in another region of Albania, is prevalent throughout in both study areas. In every second farm household in Kukes two members and in every third in Shkoder at least one household member is absent. Thus, migration is a stronger phenomenon in the remote region of Kukes. The main motive for migration is similar in both regions: the earning of additional income. Main destinations are 'wealthy' European countries such as Greece, Italy, and Great Britain. The migrants dream of a comfortable and prosperous life free of worries in the western world. However, only a few apply for a residence permit in the destination country, whereas most of them return to their origins with the money they earned abroad. 90% of the migrants engage in blue collar work. As most of them are informally in the destination countries, one can suppose that they are largely illicit workers not being socially insured. About 80% of the migrants send remittances to their kin, thus they do not only care for themselves, but also for the family members who remained at the homestead. This proves the strong social bonds of the families. What has been found by GTZ and BMZ (2006) and by GERMENJI and SWINNEN (2005) is reconfirmed in this study: International migrants are generally young adults, male, unmarried, have very little professional skills and leave the country with the purpose of finding employment. Intra-national migrants are mostly of school age and leave the homestead for higher education. The latter are frequently found in the prefecture of Kukes, where only the local capital has a college, the teaching quality of which is doubted by parts of the rural population. Therefore, students have to leave the prefecture for Shkoder, Durres or Tirana for academic education.

Household income

Before having a look at the absolute and relative diversification of income across the different sources, first some findings on the general income situation in the two regions will be given. Table 3 displays key income figures in Shkoder and Kukes. Earned income is the annual sum of income from agriculture, waged and self-employment and from remittances. The latter come from absent household members, who usually work in waged employment abroad and send part of their income to their kin at their origins. Social transfers such as pensions as well as other cash inflows that are not related to current activities belong to the group of unearned income and are left out in this calculation.

The general income level is more than two times higher in Shkoder than in Kukes. The average annual income of a household is 7,080 EUR (1,660 EUR per capita) for Shkoder and 3,200 EUR (510 EUR per capita) for Kukes in 2007.[12] Likewise the ranges of income differ across the regions (Table 3). But compared to the figures published by GIENCKE et al. (2004) the farm households in the sample earn tremendously more than the average ones. They computed the average income per head and year for Shkoder 318 EUR and for Kukes 173 EUR, which is shockingly low. However, it is probable that important parts of the income were missed in their calculation.

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[12]   Average annual per capita income in 2006 for Albania: 1,036 EUR (GTZ and BMZ, 2006).

Table 3:   Income situation in the regions of Shkoder and Kukes, 2007

Earned income p.a.	Shkoder (EUR)	Kukes (EUR)
Average income per household	7,080	3,170
Minimum income per household	660	0
Maximum income per household	64,000	14,400
Average income per head	1,660	10
Minimum income per head	2000	0
Maximum income per head	16,000	2,700
1st quartile (upper boundaries)	3,540	880
2nd quartile	4,900	2,000
3rd quartile	8,000	4,500

Source: Own compilation.

Diversity of income

Four types of labour income are distinguished for the households in the study areas: income from the family farm, from self-employment, from waged employment and from remittances sent by absent family members. The latter three of them are non-farm income sources. On-farm waged employment is almost inexistent in both study areas. The vast majority of the households earns income from farming (see Table 4). Some of them farm exclusively for subsistence purposes, most however sell part of the agricultural produce. In both regions almost 90% of the households earn money from one or two sources. About 10% of the households in each region earn money from three sources. Drawing money from all four sources is virtually inexistent.

Table 4:   Combinations of sources of earned income, 2007

| No of sources	Income sources	No of HH in Shkoder	No of HH in Kukes
One source	Agriculture	27	30
	Self-employment	0	2
	Waged employment	1	4
	Remittances	0	2
	Total number of HH with one income source	28 (34%)	38 (50%)
Two sources	Agriculture + self-employment	12	6
	Agriculture + waged employment	18	10
	Agriculture + remittances	15	12
	Self-employment + remittances	0	1
	Total number of HH with two income sources	45 (55%)	29 (38%)
Three sources	Agriculture + self-employment + remittances	3	4
	Agriculture + self-employment + waged employment	2	2
	Agriculture + waged employment + remittances	3	1
	Total number of HH with three income sources	8 (10%)	7 (9%)
	Income from all four sources	1 (1%)	0
	No income from any source	0	2 (3%)
	Total number of HH	82 (100%)	76 (100%)

Source: Own data.

Note: HH = household.

Unsurprisingly, the contribution of the sources to overall income of an average farm household in Shkoder is quite different from the one in Kukes (Figure 2).

Farm income plays a larger in the average budget of a farm household here. More than 60% of a Shkoder farm household's income come from the farming activity. Hence, other sources are of lower importance; especially social transfers play only a marginal role in Shkoder. The share of income earned locally outside the farming sector in waged or self-employment is exactly the same at 22% in both regions. In sharp contrast, Kukes farmers actually earn only about 40% of their overall income from farming. The dependence on social transfers of Kukes households is remarkably high at a quarter of total income and thus higher than the contribution from local RNF activities. Clearly, this is because of the generally low level of farm and non-farm earnings in the region, leading to a relative increase in importance of transfers in relation to other sources.

Figure 2:   Contribution of the single income sources to the overall household income in percent
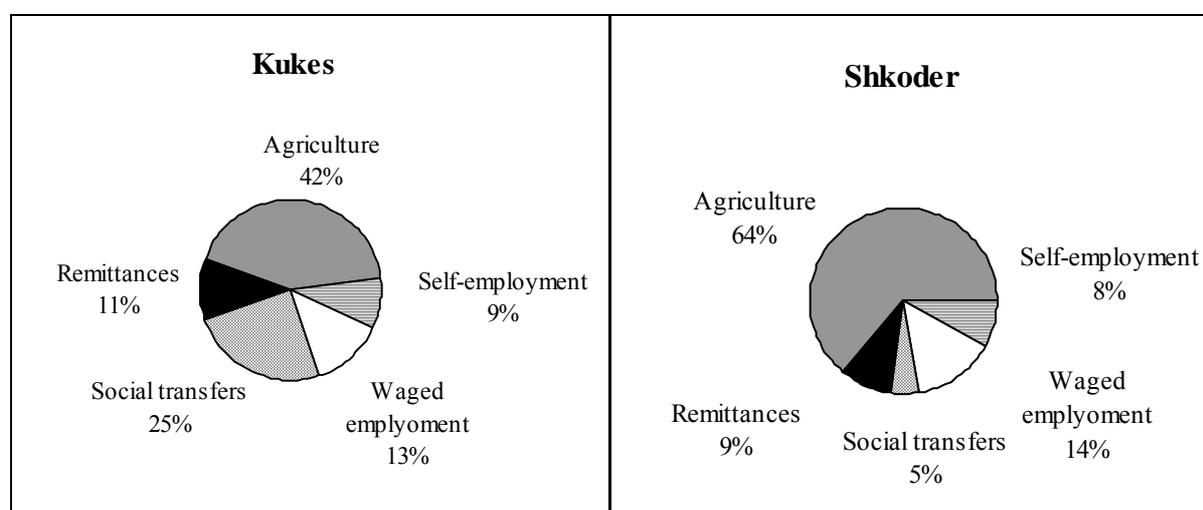
Source: Own data.

Not only the *share* of farm income in total income is larger**,** but also the *level* of income is tremendously higher in Shkoder. The average proceeds of sales of agricultural produce are almost twice as high as in Kukes at 3,760 EUR per year (Table 5). Albeit the farms in Kukes are bigger in terms of total land owned on average, the remuneration from farming is considerably lower at an average of 1,440 EUR. The same phenomena appear in the average incomes from running a non-farm family business or being waged employed. A household running a family business in Shkoder earns on average about 2,595 EUR per year. In Kukes the respective figure is 2,280 EUR, or more than 10% less. A household engaged in waged employment in Kukes earns on average 2,255 EUR and the corresponding household in Shkoder earns 6,255 EUR or almost 280% more. This striking difference partly results from the fact that waged employment in Shkoder is dominated by better paid academic activities, like lawyers and economists, while employees in Kukes engage mostly in low wage sectors such as transport, construction, and public services. What has been found for the local non-farm employment holds also true for the remittances sent back to the households; they are considerably higher in Shkoder. In both areas, if a household engages in the non-farm sector or receives remittances, they substantially contribute to the overall household income. 29% of households in Shkoder and 62% of the households in Kukes receive social transfers and its contribution is especially remarkable in Kukes. Almost one fourth of the per capita income here is contributed by public support.

Table 5: Average composition of income divided by regions

Average income from … per year in EUR	N	Shkoder	N	Kukes
· Farming	81	3,760	65	1,440
· Non-farm sources	82	3,320	77	1,705
· Self-employment	18	2,595	16	2,280
· Waged employment	25	6,260	18	2,255
· Remittances	22	3,130	20	2,715
· Social transfers	24	1,075	48	1,455
Total earned income on average (excl. social transfers)	82	7,080	77	3,170
Total income on average (incl. social transfers)	82	7,395	77	4,075
Average total earned income per head	82	1,670	77	510
Average total income per head (incl. social transfers)	82	1,740	77	660

Source: Own data.

The frequency, the recent development of the business surrounding in the western areas of Albania, the higher level of education as well as the higher wage level in waged employment hint at demand-pull led diversification in Shkoder. We have to remember the dramatic situation on the labour market and the prevalence of hidden unemployment in Kukes, where (waged) employment opportunities are very rare. Thus one can conclude that opening up a small business is the *only* way to generate additional income. Nonetheless, there are a number of households engaging in waged employment in Kukes. But as was shown in Table 6 the remuneration is tremendously lower here and does not have the same effect in increasing the household income as in Shkoder.

As described above, the Shannon equitability index, as a descriptive tool, allows a comparison of the degree of diversification. The average Shannon equitability index for Shkoder is about 0.31. This means that the average farm household in Shkoder diversifies its income to 31% of the maximal possible diversity of income. For Kukes the index is 0.20. As already shown above, the households in Kukes make less use of the different income sources. Due to the high share of households obtaining income only from one source, for both regions the mode is at 0.00. But the ranges between the minimum and maximum values of the index differ across the regions: it is larger for Shkoder. Here it ranges between 0.00 and 0.85 and in Kukes between 0.00 and 0.70.

The Shannon equitability index does account neither for the household size nor for the dependency ration in the household. However, the index is negatively correlated with both of them at a low level.[13] Hence, when a household is large in members or with many dependent family members, the degree of income diversification is low in tendency.

Table 6 gives an overview about the average Shannon equitability indices per income quartile differentiated by study area. In both regions higher diversification levels seem to be correlated with better-off income groups. As the Shannon equitability index and the total income from the four sources stated above are positively and for Kukes even highly significantly correlated[14], it can be assumed that income diversification has a positive impact on farm households' welfare.

The overall levels of diversification differ between Kukes and Shkoder: the households in Shkoder diversify their income to a higher degree than the households in Kukes. We assume that this difference is based on different proximity to the local urban centres and different preconditions and opportunities to diversify incomes. Additionally, in Shkoder non-farm income sources are

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[13] Pearson correlation coefficient for the Shannon Equitability Index and number of members living in the household: -0.130 (2-tailed significance 0.104) and respectively for the dependency ratio -0.195 (2-tailed significance 0.014).

[14] Pearson correlation coefficient for the Shannon equitability index and overall income per year: 0.304 (2-tailed significance 0.000).

more remunerative than the ones in Kukes. Thus, for households in Shkoder it is easier to spread the risk of income loss across several sources. On the contrary, in Kukes low diversification is an essential weakness. A sudden loss of their low and only little diversified income would push them easily into a situation of abject destitution.

Table 6: Average Shannon equitability index per income quartile and region

Income quartile	Shkoder		Kukes	
	Boundaries of quartile in EUR	Average Shannon equitability index for the quartile	Boundaries of quartile in EUR	Average Shannon equitability index for the quartile
1	0-3,540	0.11 (StD 0.22)	0-880	0.08 (StD 0.18)
2	3,540-4,900	0.19 (StD 0.21)	880-2,000	0.14 (StD 0.22)
3	4,900-8,000	0.45 (StD 0.19)	2,000-4,500	0.26 (StD 0.21)
4	8,000-64,000	0.50 (StD 0.13)	4,500-14,400	0.33 (StD 0.26)

Source: Own calculations.

Note: The average annual per capita income in Shkoder is 1,660 EUR and in Kukes 510 EUR.

*Attitudes towards the income generating activities*

Personal attitudes are a key element in planned decision making. Thus they constitute an important aspect in the decision making process of income diversification in favour or against a certain strategy. In Shkoder, 75% of the households have a positive attitude towards farming. In contrast, in Kukes these attitudes are much lower: about one-fifth of Kukes farmers have a neutral feeling and consider agriculture as a work as any other, and 40% have a negative feeling about farming and would prefer working in the non-farm sector. Especially among the young, aged between 16 and 40 years, this negative attitude dominates. Keeping in mind the hardship of everyday life in the remote and mountainous Kukes and the wide-spread dream of an urban, easy and prosperous living, this is not surprising. Non-farm self-employment is considered very positive in both areas, but even more in Kukes. People see it as an opportunity of not being dependent on a superior in private waged employment or exposed to unstable political circum-stances in public waged employment. Especially the flexibility of a family business is highly appreciated by Kukes farmers. Consequently, the majority of the farm households in Kukes, 58% of the sample, has a rather negative attitude towards waged employment. While more than 80% of the household members from Shkoder have a particularly warm feeling about waged employment, only about a third of the Kukes household members think so. Reasons for the different attitudes are potentially the differences in mentality being far more focussed on personal freedom in Kukes, the virtual inexistence of waged employment opportunities here and the recent negative experiences in waged employment due to fast changing and unsteady economic and political conditions.

Reasons for diversification into RNFE

Beside the general attitudes towards farm and non-farm activities, there are manifold reasons for diversification into the non-farm sector. The respondents were asked to rate some of the typical motives behind their diversification decisions (see Figure 2). A major motive for diversif-cation into a non-farm family business in both areas is the need to generate cash income and ensuring the household's living standard. Furthermore, smoothing of farm income fluctuations and increasing the social reputation of the household in the community motivate households for opening up a family business. In fact, in both regions the respondents stated that their reputation

increased[15] after opening the family business. A major obstacle to diversification into non-farm self-employment is the lack of affordable credit. Indeed, at the time of data collection formal credits, i.e. credits from a bank or other financial institutes, could only be obtained, if at least one family member was employed in the public sector.[16] The strongly negative attitude of households in Kukes towards waged employment is once more manifested in Figure 3. Although they are rather indifferent about farm work opposed to self-employed work, they strongly disagree with the preference of waged employment.

Figure 3: Reasons for and against diversification into self-employment
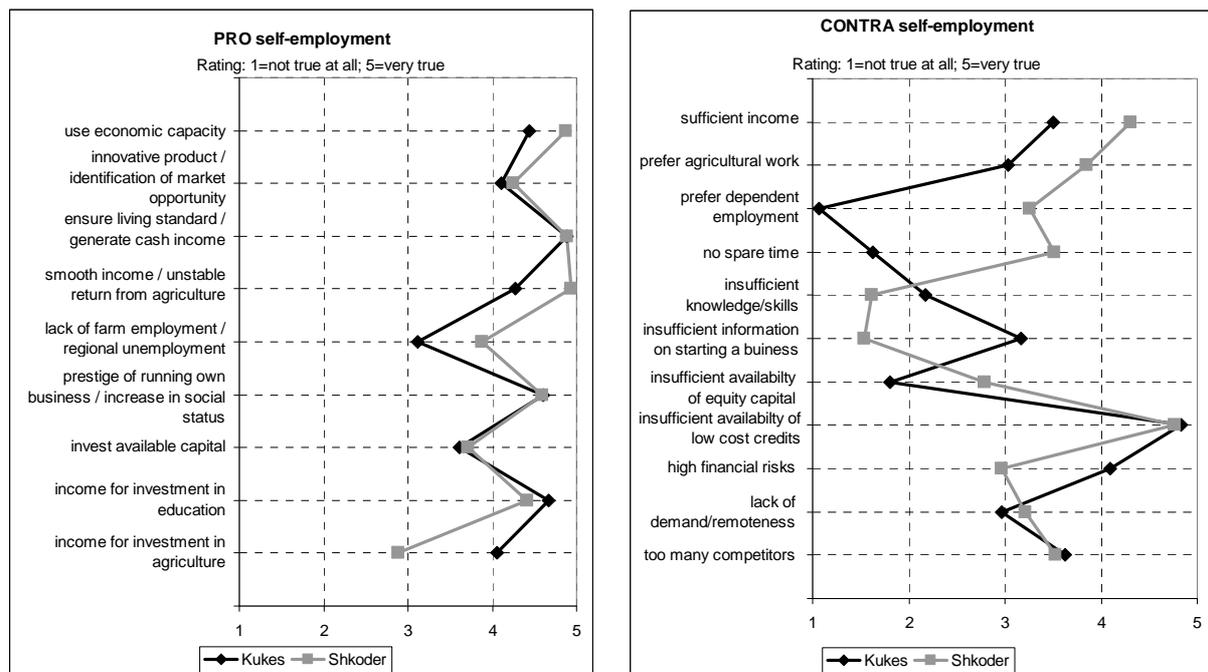
Source: Own data.

Concerning the diversification into waged employment, again ensuring the living standard, using the economic capacity and increasing the prestige of the family are rated highly. Similarly to self-employment, the statements about change in reputation after taking up dependent employment show an increase in social status.[17]

Opposed to income from self-employment, wages are used for investment in agriculture. Thus, it seems as if with the diversification into self-employment the household rather steps outside the agricultural sector without the intention to return, while the diversification into waged employment is often interlinked with an intention to expand farming activities.

The reasons why households in Shkoder and Kukes decided to *not* take up a non-farm waged employment vary. Households without waged employment in Shkoder stated to have sufficient income and to prefer farm and non-farm self-employment most probably because of the freedom to conduct one's own business. This is also true for many Kukes households without waged

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[15] The households were asked to rate their reputation after opening the non-farm family business on a scale from 1 to 5, 1 meaning that their reputation decreased tremendously and 5 that their reputation increased tremendously. The average for Shkoder is 3.76 (N=17) and for Kukes 3.88 (N=16).

[16] It was only in June 2007 that a credit scheme, especially for investments in agriculture, was launched by the ProCredit Bank. This scheme was introduced in the whole country of Albania and offers different amounts of loans at moderate interest rates.

[17] The households were asked to rate their reputation after taking up a non-farm wage employment on a scale from 1 to 5, 1 meaning that their reputation decreased tremendously and 5 that their reputation increased tremendously. The average for Shkoder is 3.71 (N=21) and for Kukes 3.73 (N=15).

employment. However, for them the main obstacles are the high regional unemployment rate, (resulting partly from) the remoteness of the farmsteads and the low wages, which are even lowered by a high competition in entering available jobs.

Figure 4:   Reasons for and against diversification into waged employment
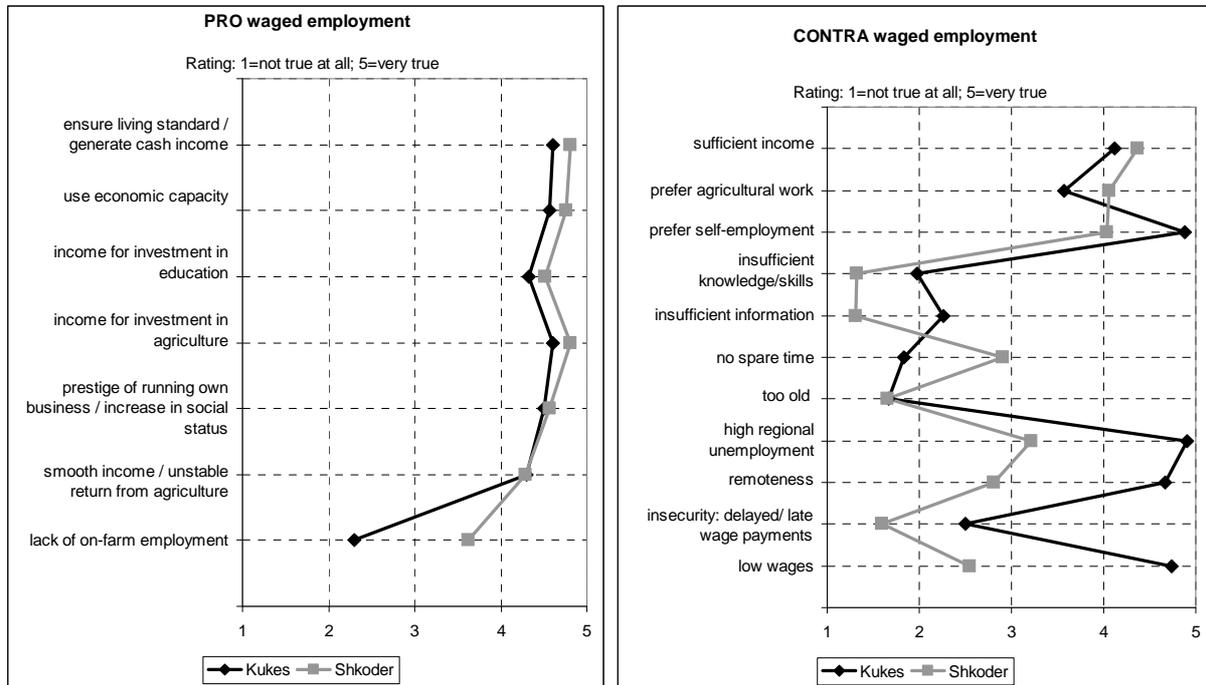
Source: Own compilation.

Determinants of non-farm income diversification

In the following paragraphs the determinants of non-farm diversification singled out in a binary logistic regression are displayed and explained (Table 8). The common problems in estimation procedures of multicollinearity and heteroskedasticity were taken into account in the model. The correlation between the estimates was checked; thus multicollinearity does not exist. Heteroskedasticity is not a problem in logistic regressions. The Nagelkerke R^2 is at 0.319 in this model, which is a satisfactory level. The Hosmer and Lemeshow test of goodness-of-fit and the test for model coefficients are significant. The variables labelled with asterisks are significant at the 1% (***), 5% (**) or 10%-level (*).

As both coefficients concerning the educational level in the households have a positive effect on the odds ratio, the *type* of education loses importance. However, the educational *level* plays as expected an important role. Education alters the way a person approaches a problem, the people one meets and the social contacts one maintains when going to regional or even national schools.

Table 7: Descriptives of the variables of the binary logistic regression

Variable	N	Mean	StD	Minimum	Maximum
Diversification dummy	160	0: 116 (72.5%) 1: 44 (27.5%)		0	1
Gender ratio	160	1.40	0.85	0	5
Agricultural education	160	1.58	1.88	0	5
Professional education	159	1.13	1.13	0	5
Dependency ratio	160	0.65	0.70	0	3
Total land (in ha)	160	1.29	1.15	0	8
Sales level	158	52.85	27.57	0	100
Attitude HHH farming	160	1.90	1.13	1	5

Source: Own calculation.

Note: HHH = head of household.

Table 8: Results of binary logistic regression for contribution non-farm income sources higher than 50% to overall household income

Independent variables	Regression coefficientB	Standard error	Wald	df	Sig.	Exp(B)
Gender ratio	0.514	0.266	3.740	1	0.053*	1.671
Agricultural education	0.255	0.110	5.411	1	0.020**	1.291
Professional education	0.195	0.113	2.978	1	0.084*	1.216
Dependency ratio	-0.643	0.375	2.938	1	0.087*	0.526
Total land	-0.348	0.252	1.903	1	0.168	0.706
Subsistence level	-0.027	0.008	11.203	1	0.001***	0.973
Attitude HHH farming	0.475	0.186	6.521	1	0.011*	1.608
Constant	-1.219	0.847	2.074	1	0.150	0.295

-2 Log-Likelihood 145.215

Nagelkerke R^2= .319

Hosmer and Lemeshow Test: χ^2 = 14.761 significance: .064

Omnibus test of model coefficients: χ^2=39.13 (df 7), significance .000

Source: Own calculation.

The more active and male members live in the household, the higher the odds ratio and thus the higher the probability that the household earns more than 50% of its income from non-farm sources. Thus men are the ones to take up non-farm employment while women – due to the traditional, male dominated role-making – are tied to house and farm work.

A higher dependency ratio in the household has a negative impact on non-farm diversification. Indeed, a major reason for households in Kukes for instance against migration as a diversification strategy is the intergenerational responsibility. If elderly and children are in the household, the active male household member cannot leave the household, because he traditionally has to care for those in need and has to take decisions together with the elder household head. The income generated in farming activities is needed for the everyday life of the presumably big household and extra capital for non-farm investments is hard to obtain.

The higher the share of produce sold in a farm household, the lower the degree of subsistence. With the cash income generated not only goods needed for everyday life, which cannot be produced on the farm, can be bought or education or health care can be paid, but also investments in non-farm businesses could be made. But opposed to these ideas the coefficient is negative.

Consequently, the higher the share of produce sold, the higher the agricultural income and the lower the probability to diversify the household's income. Hence, running farm households with considerable market orientation and cash income generation suffices to satisfy the household's needs. The household is not forced to search for another income source. Consequently, diversification is a result of urgent need for income rather than a decision to opt for additional income. It is a distress-push reaction to the economic adversities in the farming surrounding.

5   SUMMARY AND CONCLUSIONS

All results of this paper are based on the analysis of micro-data on rural non-farm diversification in Northern Albania in 2007. Taking up remunerative non-farm employment implies the chance of escaping poverty for rural households and might even induce a virtuous circle of development in rural areas. Our aim is to summarise socio-economic facts on this issue and to identify determinants of non-farm income diversification at the farm household level.

Diversification of incomes is a wide-spread phenomenon in the study areas of Kukes and Shkoder. Farm households in the area are characterised by their large number of household members, their young age and their many dependent members. Typically, the household's social capital is strongly tied to the traditional, impermeable family clan structure, which implicates discrimination and exclusion of women from economic activities. This is also reflected in the education and professional skills which are generally not at a high standard and even lower for women. We find that with increasing education and skills the probability of earning a major part of household income from non-farm sources increases. However, hidden unemployment is wide-spread and the local non-farm sector is poorly developed. Thus, synergy effects between economic entities are hampered and local non-farm waged employment opportunities are limited. This is particularly true for the remote area of Kukes, where the job market is restricted and the wage level is very low.

Soft and hard infrastructure, such as road conditions, electricity supply, is weak and the accessibility of information and market places is rather difficult in northern Albania. This leads to high transportation and transaction costs for producers. Farm development is further hampered by small farm sizes as well as low productivity and efficiency. Land market is virtually inexistent. Information on farming techniques, but also on non-farm professional matters is hard to obtain.

Given these poor economic conditions, the outflow of the young men is tremendous. Although the majority of migrants returns to their homesteads in the long run, during their absence, their economic and social activity is missed in the region. Nonetheless, farm households in both areas considerably benefit from remittances sent by absent household members.

The greatest part of the households derives its income from two sources, one of which is usually farming; the other is a local non-farm income source or remittances. Measured by the Shannon equitability index we could identify a statistically significant increasing trend in incomes with rising diversification level. This leads to the conclusion that income diversification indeed has a positive impact on the welfare of the households.

However, the main motivation of diversification is probably based on distress-push situations. Major reasons for taking up non-farm employments are the generation of additional cash income and the smoothing of income fluctuations. Self-employment is rated very positively, probably mainly due to the entrepreneurial freedom. In opposite, the attitude towards waged employment is more negative, especially in Kukes where waged employment is hard to find and lowly paid. Generally, the elder generations have a warmer feeling for farming activities than the younger who dream of the prosperous and easy urban way of life. Signs for demand-pull dynamics are scarce. The increase in reputation when engaging in the non-farm sector could be seen as an indication for demand-pull led diversification. In Shkoder, where there are more job

opportunities, the higher incidence of academic positions might also motivate farm households to invest in education with the purpose to enter non-farm employment. Generally, it becomes obvious that the households engaged in the lowly remunerative non-farm activities are rather trapped in their desolate situations than able to drag themselves out of poverty. Therefore, it can be concluded that although diversification processes in northern Albania are ongoing, the large potential of demand-pull dynamics which could substantially contribute to rural welfare and poverty alleviation still needs to be tapped.

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