From Kolchoz systems to fee-based private agricultural extension: Achievements with a client-oriented training and advisory concept as support for private farming in Azerbaijan

¹J.P.A. Lamers, ²P.R. Feil, ³N. Bayverdiyeva, ³Y. Guliyeva and ³F. Djafarov ¹ZEF, University of Bonn, ZEF (Center for Development Research), University of Bonn, Walter-Flex Str. 3, 53113 Bonn, Germany; Email: <u>j.lamers@zef.uzpak.uz</u>; ²Consultant, Email. <u>Petrafeil@hotmail.de</u>; Roemerstr.94, D-56130 Bad Ems; ³Agro Information Centre, 134, Sharifzade str., Apt 5, Az1122, Baku, Azerbaijan, E-mail: <u>aim_office@aim-az.com</u>.

ABSTRACT

State initiated land reform and privatization processes in Caucasian Azerbaijan, which were designed to boost the agricultural sector, resulted in the creation of farmers without farming tradition and with insufficient skills to engage in own farming. Since 1999, the private Agro Information Centre (AIM) strives to bridge this gap by implementing a situation-specific, client-oriented training and advisory concept. AIM has trained 210 private, village-based agricultural advisors (AAs) and introduced fee-based extension to meet farmers' demands. Between 2000 and 2004, various training and educational programs on production techniques, communication skills, and farm entrepreneurship were conducted that combined lectures, field visits, on-the-job-training, and tailor-made coaching. The 210 AAs served 13,185 farmers/clients and concluded 3,247 verbal and written contracts with a total value of 213 Million Manat (ca 43,500 USD), which amounted to an annual average income of ca 215 USD. After four years, reference farmers (without access to extension) had less farm capital, less knowledge of production technologies, and were more dependent on off-farm income than contact farmers (with extension). It is argued that the implemented fee-based privatization concept may be a *panacea* for countries with similar transitional economic backgrounds.

Key words: AIM, land reform, privatization, participatory agricultural extension, demand-side funding, former Soviet Union, economic transition countries.

INTRODUCTION

Following independence in 1991, the Republic of Azerbaijan underwent sweeping changes in its social and economic foundation. The Armenian occupation led to a million refugees and internally displaced people (IDP)s, while the economic and information blockade prompted a sharp decline in living standards (Republic of Azerbaijan, 2003). Presently, Azerbaijan's economy is rooted in the mainly offshore oil- and gas sector, while the agricultural sector, chiefly semi-subsistent in nature, is the engine of rural sector development.

Although 40% of the workforce is employed in agriculture, this sector accounts for only 16% of GDP due to the low income of

farmers, which is only 30% of the national average (Republic of Azerbaijan, 2003). Land reforms in 1997 provided 846,600 families with land titles (Sampath 1998), a majority of them ill prepared for private farming. Urban residents of rural origin who returned to the countryside to exercise their land rights (Giovarelli & Bledsoe, 2001) had difficulty coping with the changes in the nature of farming operations (Sampath & Janakiram 1996). Farmers were cut off from production subsidies and traditional market outlets in other former Soviet republics, market revenues did not cover the costs of production, the irrigation network was outdated, and the soils

were saline, polluted and impoverished (Sampath, 1998).

Shortcomings in the agricultural sector result from several technical inefficiencies (Pagoda et al., 2004), but especially the lack of training for producers. This is underscored by several studies (Kessler, 2001; Lamers et al., 2002), indicating that the experience gained on large state-run farms was not sufficient. After independence, advisory services to farmers ceased, and all auxiliary infrastructure needed for farming such as laboratories, research stations, food safety, and phyto-sanitary controls, collapsed (Babaev, 2006). The lack of opportunity to access credit schemes and the lack of collaterals were additional obstacles preventing higher farmer revenues (Republic of Azerbaijan, 2003). Efforts by international development agencies such as the German Technical Cooperation Agency (GTZ) (Kessler, 2001) and Worldbank (2002) to develop extension-type services were limited to selected regions. These resulted in low impacts on farmers due to corruption, low motivation, or insufficient staff competency. To reverse this negative trend, the Government of Azerbaijan (GoA) developed policies and programs for the 2004-2008 period that should support farmers in accessing soft credits from the state, and developing rural projects such as processing industries, agricultural service stations, and seed production farms (Babaev, 2006). However, implementation has been slow, regionally limited, and has not yet shown visible results on the ground. For most farmers, the key sources of information and advice remain commercial traders and firms that sell agricultural inputs, research stations (for farmers with good connections), or international NGOs with temporary mandates in well-targeted regions.

To fill this gap, the Agro Information Centre (AIM), a national NGO, established a private and decentralised advisory participatory service provision system in 1999 aimed at a wide coverage of target regions where other service providers were absent. The concept of the client-oriented extension approach has been extensively documented (Lamers et al., 2000); therefore, only a brief overview is presented here. The focus of this article is to examine farm-level impacts through comparison of the performance and welfare of farmers with and without access to extension, and the evolution of the private advisory service and income of the agricultural advisors (AAs).

BACKGROUND INFORMATION ON INTERVENTION REGION AND EXTENSION APPROACH

Description of the intervention site: The intervention region of AIM is in Central and Southern Azerbaijan (Figure 1) and is part of the warm, dry, semi-desert climate zone. Irrigated agriculture dominated by cotton, wheat, alfalfa and vegetable production, as well as extensive livestock rearing, is the backbone of the rural economy. The continental climate is characterized by high light intensity, daylength, and temperature. No exceptional weather conditions occurred in the reported years 2002-2003.

Agriculture is not possible without irrigation, but farmers have to cope with a dysfunctional irrigation and drainage system that would require major investments for rehabilitation. Many of them have never run a farm business before, as they have been employees of state farms, machine-tractor parks or other support organizations. Therefore, most of them lack the management skills and agronomic knowledge to adequately manage the day-to-day farm business.

Additionally, modern agricultural equipment such as tractors, ploughs, seeders or combiners are

completely lacking. Farmers are therefore forced to choose from the equipment leftover from previous collective farming system, which is of poor quality, demands high maintenance and operations costs whilst spare parts are lacking. The alternative is to use animal traction in which horses play a major role in transport and harvest. The entire agricultural equipment of the former state farms has been privatized. Hence, only a few people became the owners of equipment and earned income by renting these out to farmers.

Centerpieces of the extension set-up of AIM: AIM is a not-for-profit, national NGO established in 1999 with the objective of improving access to, and shorten the distance to, reliable and high quality agricultural advice and information for the farming population. The centerpiece of AIM's strategy is training and upgrading village-based agricultural advisors (AAs) and assistance for the successful graduates in establishing private advisory offices in the villages and offering fee-based service delivery to farmer

clients, and promoting direct contracts between farmers and AAs (Lamers *et al.*, 2000).

During 1999-2004, a step-wise approach for training and establishing advisory offices (Lamers *et al.*, 2000) was developed and fine-tuned during four AA training cycles. Much attention was paid to the selection and identification of AAs and the villages to be covered.

The selection process began with local authorities and representatives of the target populations voicing their demands to AIM. Meetings were then conducted with representatives from the municipalities and with farmers to receive economic information regarding potential areas of intervention and agricultural specialists as potential candidates for AA. Interested agricultural specialists were interviewed and tested on their technical knowledge by AIM trainers. Candidates were selected who had a strong agricultural background, with at least five years of own-farm work experience, good communication skills, positive reputation in the community, broad knowledge about the community and area, sufficient

PROCEDURES AND METHODOLOGIES

Monitoring and assessing knowledge, income and welfare of extension clients: Since 2002 (after completion of the first training cycle), AIM has continuously monitored 70 randomly selected farm/households (hereafter called "contact farmers") in nine villages in the Agjabedi, and five villages in the Beylagan region. In each of these villages, five contact farmers with access to extension from Aas, voluntarily provided information on farm labor force, physical assets, machinery, land use, plant and livestock production, and off-farm and total family income. The surveys, conducted in the local language by six selected AAs specially trained for this task, combined structured (questionnaires) and semi-structured interviews (guidelines). It was carefully assured that these AAs did not survey their own clients and villages. After the compulsory quality and consistency checks, AIM staff revisited and cross-checked the information. For comparison, 55 farm/households without access to extension ("reference farmers") were randomly selected from six villages in Agjabedi and five villages in Beylagan region and subjected to the same survey methods.

The data were analysed on functional relationships using correlation analysis. Parameters affecting income and productivity were analyzed using t-tests at a p<0.05 level of significance. Net income was estimated as gross income minus costs. All costs were converted into cash and included the funds each farmer spent for own labor, seeds,

time available, able to travel when needed, and were under 45 years of age. Short-listed candidates attended a three-day selection workshop and the most promising candidates were offered a 1-year traineeship.

The selected candidates attended a combination of classroom and on-the-job training and program on economically educational ecologically sound crop and livestock production techniques, communication and problem-solving skills, and entrepreneurial farm management. AIM formed groups of 3-5 AAs in nearby villages, which were coached by AIM-trainers during practical implementation. During the first five months, trainees were awarded a financial compensation. Following successful graduation from this first training process, from the seventh month onwards the trainee/AA rendered services to farmers on a contractual basis. Remuneration by farmers was negotiated between advisors and clients only. This set-up ensured continuous and timely advice for farmers, while reducing the transportation costs to a minimum.

organic fertilizer, etc. Farmers were grouped into three classes: those with total net income below 5,500,000 AZM (ca 1,120 USD), those with a total net income greater than 5,500,000 AZM but less than 10,000,000 AZM, and those with a total net income above 10,000,000 AZM. The results are reported for the years 2002 and 2003.

Monitoring and assessing the paid extension services: AIM staff monitored the development of the private advisory sector by observing 75 AAs over four years in the Agjabedi and Beylagan regions with regard to the number of farmer/clients served, the number and type of contracts concluded between AAs and their farmer/clients, and the cash and in-kind fees paid by farmers for the services rendered. Considering the scarcity of cash in poor, remote areas, in-kind payments were more frequent and they usually involved crops, poultry, or a certain percentage of the harvest. In-kind payments were valued with the market price on the day of payment. *t*-tests, regression, and correlation analyses were performed with SPSS 11.1.

MONITORING AND ASSESSING KNOWLEDGE, INCOME AND WELFARE OF EXTENSION CLIENTS

Monitoring knowledge, income, and welfare of farmer/households: The average farm size of about 3.2 ha (Table 1) for contact and reference farm/households does not provide a sustainable basis for the development of a farm sector. When possible, farmers rented additional land from absentee landowners. The average size of a farm family was about six people, usually three of whom were considered as working family members (Table 1).

In 2003, contact farmers had significantly (p=0.013) higher winter wheat yields than reference farmers, although they also had significantly higher operational expenses. In 2003, contact farmers earned a highly significant (p=0.005) higher net income 400,000 AZM (80 USD) per ha of wheat than reference farmers. The increase in cropped alfalfa and cotton area and yield varied significantly between years for contact farmers, and between contact and reference farmers in 2003.

Total labor costs of contact farmers increased from 365,000 AZM (ca 75 USD) in 2002 to 559,000 AZM (ca 115 USD) in 2003, underscoring higher investments in plant and livestock production by contact farmers than reference farmers. Although in 2003 the average number of farm employees increased significantly from 1 to 4 people, the intention of contact farmers to crop more of the cash crop cotton was hampered by additional labor costs. This was evidenced by a positive correlation between the number of working family members and cotton area (r=0.33), cotton harvest (r=0.34), and cotton net income (r=0.35). Increased vegetable production was obstructed by high initial costs of seeds (potatoes and onions) and transportation.

In 2003, the net income of contact farmers increased to 2,100 USD, whereas the net income of reference farmers did not even reach the income level of contact farmers in 2002. Total net income was positively correlated with the number of employees (r = 0.31 in 2003), family labor force (r = 0.4), area of own-land size (r = 0.39 in 2002; r = 0.42 in 2003), alfalfa area cultivated (r = 0.763), and total costs of production (r = 0.46). Reference farmers earned on average 1,700,000 AZM (ca 347 USD) less net income from livestock and poultry production than contact farmers, due to lower numbers of animals and lower productivity per animal. Contact farmers invested more heavily than reference farmers in livestock production. Reference farmers relied

relatively more on off-farm income as a result of their significantly lower on-farm income.

In 2003, the share of low-income farmers decreased to 21%, whereas the share of high-income farmers increased to 40%. In 2002, about 4% of the contact farmers had a net income of more than 4,080 USD. In 2003 this share increased to 9%. The average area of cultivated land for the high-income group of farmers was 7.8 ha (4.7 ha own land and 3 ha of leased land).

Assessment of knowledge, income, and welfare of farmer/households: Although the data cover only one year, the results of qualitative interviews provide strong evidence that contact farmers attributed increases in productivity to the services they paid for from AAs. Greater knowledge of, and skills in, production technology has contributed to an increased, and a more efficient, use of inputs (new seeds, varieties, mineral fertilizers). Contact farmers had expanded farm activities, and invested funds and labor into plant and livestock production. These results are in line with findings worldwide and underscored by the high rates of return to extension investments (Birkhaeuser et al., 1991) or farmer education (Lockheed et al., 1980; Jamison & Lau 1982). In Thailand (Nanta 1996) and Sri Lanka (Ekneligoda 1996), pesticide applications by trained farmers decreased due to increased knowledge and participatory training, while rice yields increased by 25%. High impacts of schooling and training farmers on farm profits were reported in Sri Lanka (an increase in profits of 40%), Thailand (30%) and China (10-25%) (FAO, 2000).

Data from the follow-up survey conducted in 2006 (unpublished) among the contact farmers showed a considerable increase in their income, which was upto 8-10% higher than from other small-scale business enterprises in the region. The preliminary results of a farm survey indicated that the share of income due to the crops increased over time The growing importance of livestock to the total farm income was also confirmed by the 2006 preliminary results.

The core function of agricultural extension is to improve farm income through provision of information to farmers and assistance in solving problems (Albrecht *et al.*, 1989). In Azerbaijan this was a challenge given the levels of rural poverty. The State Program on Poverty Reduction and Economic Development (SPPRED) in Azerbaijan reported for 2002 that about 45% of the population in the rural area lived below the poverty line of 309.6 USD (1.4 Million AZM) per capita (Republic of Azerbaijan,

2003). For the average family of contact farmers, this amounts to a total family income of 1,857.6 USD (8.64 Million AZM) as the poverty line. Thus, even the class of high-income contact farmers was still close to poverty and hence not in a position to test out all the new agricultural techniques. Most farmers cannot afford to risk poor production in the pursuit of higher

yields, nor could they afford (short-term) dips in profitability, when advice would recommend alternative avenues towards obtaining long-term economic benefits and sustainability. Therefore, the observed increase in farm income is substantial and the willingness to pay for extension despite the poverty levels is impressive.

Table 1: Key indicators of farm welfare in Agjabedi and Beylagan regions in 2002-2003 with and without service by extension providers

Indicator ¹	2002 (+ extension)	2003 (+ extension)	2003 (minus extension)
Family members (numbers)	6	6	5
Working members (numbers)	3	3	2
Employees (numbers)	1	4	1
Own land (ha)	3.1	3.3	3.6
Cultivated land (ha)	3.7	3.9	3.4
Wheat – share of farm (%) ²	96	88	66
Wheat area (ha)	2.0	1.8	2.3
Wheat yield (t ha-1)	2.25	2.78	2.30
Wheat net income (mill. AZM)	1.3 (16%)	1.6 (16%)	1.1 (16%)
Wheat income (mill. AZM ha-1)	0.7	0.9	0.5
Alfalfa – share of farm (%)	73	83	64
Alfalfa area (ha)	1.5	1.8	2.1
Alfalfa yield (bails ha-1)	466	551	366
Alfalfa net income (mill. AZM)	1.2 (15%)	1.7 (16%)	1.3 (19%)
Alfalfa income (mill. AZM ha-1)	0.8	1.0	0.6
Cotton – share of farm (%)	29	31	20
Cotton area (ha)	1.5	1.8	1.8
Cotton yield (t ha-1)	2.0	2.28	2.04
Cotton net income (mill. AZM)	2.4 (30%)	3.5 (34%)	2.7 (40%)
Cotton income (mill. AZM ha ⁻¹)	1.6	1.9	1.5
Vegetables (mix) – share of farm (%)	4	13	2
Vegetables area (ha)	0.9	0.7	0.2
Vegetables yield (t ha-1)	17.8	16.0	10.0
Vegetables net income (mill. AZM)	2.4	2.2	0.6
Vegetables income (mill. AZM ha-1)	2.7	3.1	4.0
Plant prod. net income (mill. AZM)	3.4 (42%) ³	4.8 (47%)	2.7 (40%)
Cattle – share of farm (%)	87	89	84
Cattle (Number per farm)	4.4	5.6	4.3
Lactating cows (number)	2.0	2.4	2.2
Milk (kg per cow)	1040	997	755
Cattle net income (mill. AZM)	1.5 (19%)	2.1 (20%)	1.1 (16%)
Sheep – share of farms (%)	41	59	20
Sheep/goats per household (number)	22 (17/5)	25 (21/4)	24 (24/0)
Sheep/goat net income (mill. AZM)	0.5 (6%)	0.8 (8%)	0.6 (10%)
Buffaloes – share of farm (%)	13	21	8
Buffaloes per household (number)	2.5	2.5	1.5
Buffalo net income. mln. AZM	0.7 (9%)	0.6 (6%)	0.2 (3%)
Poultry – share of farm (%)	80	96	88
Poultry per household (number)	80	84	33
Poultry net income (mill. AZM)	0.5 (6%)	0.6 (6%)	0.5 (8%)
Livest. prod. net income (mill. AZM)	2.2 (27%)	3.1 (30%)	1.4 (21%)
Additional income (mill. AZM)	2.4 (30%)	2.4 (23%)	2.7 (40%)
Total family net income (mil. AZM)	8.0 (1630)4	10.3 (2100)	6.8 (1390)

¹All values are means per farm/household; ²Percentage of farmers who planted wheat among the 70 farmers surveyed; ³In brackets: the percentage of the share of total family income; ⁴In brackets: equivalent in USD.

MONITORING AND ASSESSMENT OF PAID EXTENSION SUPPLY

Monitoring of paid extension supply and ways to deliver advice: The chief criterion of success was how many AA remained "in business" after graduation. During 2000-2004, AIM trained 210 AAs; 60 in the Agjabedi region and 60 in the Beylagan region (Figure 1), which served as experimental sites for the development of AIM's approach, and the other 90 in the other regions. One person dropped out after graduation, whereas some female advisors were not very active due to their family duties.

Until June 2004, the 210 AAs served a total of 13,185 farmer/clients in 182 settlements (Table 2) and concluded a total of 3,247 contracts, 48% of which were verbal and 52% in a written form. Contracts were concluded for training, assistance in problem solving, and information provision on various subjects; chiefly on cropping, animal and poultry rearing, and farm economics.

Over time the number and value of written contracts, and thus the willingness to remunerate the AAs for services rendered, increased. About 70% of all contracts were for a full year of services (12 months), while the duration of the remaining 30% varied between 6 and 9 months. The total value of all contracts amounted to about 213 Million AZM (ca 43,500 USD). The mean value of all written contracts was about 82,660 AZM (ca 17 USD), in contrast to

the mean value of about 50,000 AZM (ca 10 USD) for all verbal contracts (Table 2).

The permanently monitored 75 AAs concluded 1,227 contracts. On average, an AA had 16.4 contracts per year. The values of all contracts varied from a minimum of 60,000 AZM (ca 12 USD) to a maximum of up to 3,939,000 AZM (ca 800 USD). The average value of the contracts was highly correlated with the former profession of AAs: agronomists, veterinarians, and former mechanics had significantly higher contract values than economists.

Verbal contracts in general were more widespread than written ones. Particular contracts involving small cash amounts of less than 50,000 AZM (ca 10 USD) were more common than verbal contracts, whereas agreements involving larger cash amounts were concluded mainly in writing (Table 3). The number of written and verbal contracts involving in-kind payments was roughly equal. In-kind payments occurred with wheat (in 70% of the cases) and bails of alfalfa hay (in 14% of the cases). In a few cases AAs received in-kind payments such as chickens (about 6%) and turkeys (2%), vegetables (onions, potatoes, tomatoes) or fruits, or dairy products. The payments were mostly based upon a certain percentage of the harvest or a fixed amount, conditional upon successful increase in yields subsequent to consultation.

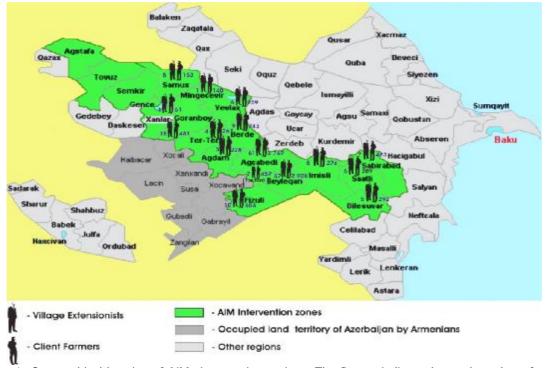


Figure 1: Geographical location of AIMs intervention regions. The figures indicate the total number of trained agricultural advisors (AAs) during 2000 and 2004, and the total number of extension clients served.

Table 2: Number and value (in Azeri Manat) of written and verbal contracts concluded by 210 private agricultural advisors during 2000 and June 2004 according to the type of clients.

No. of AAs		client/ ners	No. of written	Value of written	No. of verbal	Value of verbal	Total no. of	Total value of contracts (in Manat)
_	IDP	Local	contracts	contracts	contracts	contracts	contracts	
				(Manat)		(Manat)		
24	600	1,480	24	2,247,000	226	4,147,000	250	6,394,000
26	800	1,477	160	12,174,000	314	13,166,000	474	25,340,000
25	400	1,594	395	33,575,000	156	10,878,000	551	44,453,000
37	346	254	n.a*.	n.a.	n.a.	n.a.	n.a.	n.a.
23	1,041	414	259	25,270,500	246	22,224,500	505	47,495,000
23	515	824	291	18,330,000	172	8,388,000	463	26,718,000
25	150	1,795	371	31,890,000	396	13,666,500	767	45,556,500
27	40	1,455	50	4,639,500	187	12,302,500	237	16,942,000
210	3,892	9,293	1,550	128,126,000	1,697	84,772,500	3,247	212,898,500

During the time of writing the exchange rate was 1 USD = 4900 Manat. However, during the observation period, the exchange rate ranged from 1 USD = 3700 Manat in 1999 to 1 USD = 4900 Manat in 2004; n.a = not available.

Table 3: Number of verbal and written contracts of 75 agricultural advisors in two intervention regions Agjabedi

and Beylagan according to form and value of the contract and the type of payment.

		Agjabedi	Beylagan	Agjabedi	Beylagan
		Total	Total	Total	Total
	0-9 999	255	197	152	216
payment	10 000-24 999	84	80	5	4
ayı	25 000-49999	34	22	12	20
4	50 000-99 999	14	5	49	31
Cash	>100 000	4	2	17	24
In-kind payment	0-9 9 99	266	185	94	82
	10 000-24 999	100	74	9	15
	25 000-49999	14	28	39	70
	50 000-99 999	11	16	53	83
	>100 000	0	3	37	36

Assessment of paid extension supply: AIM strove to achieve sustainability of the services rendered with the introduction of fee-based services, which is a challenge given the Azerbaijani history of collective farming and free-of-charge public services (Babaev, 2006). Nevertheless, the previously observed reluctance towards paying for non-material services seems to have been broken down and the positive results of the AIM concept showed that such services are worth the initial investments. The authors attribute several factors to the success of this approach.

Firstly, introducing paid extension as a concept was considered from the onset of the set-up. Thus, AIM paid careful attention to selecting proper trainees and providing them with the high-quality training, accompaniment, and encouragement

needed to face challenges. Secondly, the close collaboration of AIM trainers with the trainees in their respective villages during the training phase, as well as assistance after graduation in the establishment and start-up of their offices, were additional factors in creating trust and acceptance through quality service delivery. Over time, the contact farmers learned to appreciate that AAs not only delivered relevant advice, but were also the appropriate contact points for professional advice and information exchange regarding new developments in the agriculture sector.

long-term relationships The between extension advisors delivering quality and targeted information according to the needs of clients provided a sound basis for contracting. This is confirmed by the yet unpublished preliminary survey results from

2006. As expected the number of farmers served and the number of contracts concluded was less when compared to the survey year 2004, but AAs concluded contracts with about 60% of their contact farmers. Hence it seems that five years after graduation AAs have established their fixed clientele, with whom they have firm and trusted relations. The sustainability of the fee-based extension service is growing.

Thirdly, AIM and the AAs made a strategic decision to refrain from any involvement in credit and classical input delivery support, while investing in empowering farmers during the technology transfer process. This resulted in long-term acceptance of AAs as neutral information sources and as referees in the villages, since corruption, misinformation, and a lack of repayment mentality are still very widespread with regard to credit and access to inputs.

Fourth, since previous extension efforts recurrently included the establishment of a central extension provision service that in hindsight was affiliated with large and accruing expenses (Hoffmann *et al.*, 2000; Kidd *et al.*, 2000), a cost recovery of the extension efforts became expensive. Hence the management of costs for extension delivery as an important factor for keeping remuneration fees low was considered from the beginning. A lean and self-administered structure with independently working AAs was confirmed as an alternative option.

Fifth, although farmers remunerated the AAs, the payment and fee were most often debated, which is understandable considering the poverty indicators of farmers. However, there are also psychological aspects involved. For example, during the training periods of the AAs, farmers accused them of asking for bribes when raising the issue of fees and payment. Once trust was established, the remunerations paid by farmers to AAs depended very much on the additional benefit farmers obtain in the end. Recurrently contracts included the conditions of success and in several cases the AA was not paid even if not responsible for the misfortune. However, the closeness of the village community as well as the long-term nature of the client-advisor-relationship regulated the business relationship between farmers and AA. An AA who will not be paid for his time and efforts spent may become reluctant to sign another contract with this "difficult" client. Also, the AAs felt the pressure of keeping their knowledge updated and kept coming back to AIM for further training and information.

Sixth, AIM introduced a monitoring and evaluating (M&E) system at an early stage that aimed at maintaining the high quality of their training courses, thus ensuring that extension made a difference to farmers served by AAs. Only by constant questioning could AIM adapt to new challenges and reactions of farmers, as well as AAs. Besides traditional, extractive methods of M&E, AIM used more formative methods. For example, an annual balance was drawn together at annual conferences with the AAs and farmers. Also, regular consultation feedback and meetings representatives of the AA graduates were conducted before taking major decision on changes. The permanent institutional learning thus contributed to the spread of the approach and the willingness of AAs to continue and to experiment during their work.

OUTLOOK: A ROAD TO PROGRESS FOR OTHERS?

Since 2005, international organizations (e.g., World Fund Bank, International for Agricultural Development, and GTZ) and agricultural research centers (e.g., International Center for Agricultural Research in the Dry Areas and International Fertilizer Development Center) have collaborated with GoA more intensively to develop the agricultural sector (Babaev, 2006) and promote different types of service delivery. The AIM system was incorporated by World Bank delegates intending to develop a lean approach to extension and other services delivery in a mix of public-private structures. However, the influence of public administration is still strong and under these conditions AIM refrained from participation or working as subcontractors. One may expect for the nearer future that these newly established public-private structures produce visible results, which could be compared with those of AIM. Tendencies in national administration focus on the establishment of central agricultural services with a centralized office staffed with public extension agents. On the other hand, decentralization of agricultural administration and service delivery began in 2004-2005 only and may have a second chance, at least at municipality level.

In light of experiences gained in the former Soviet republics such as Kyrgyzstan or Estonia, where a nation-wide, decentralised system (Katz, 2002) was initiated and in other former socialistic countries (Beeler, 1999; Katz, 2002; Loolaid; 2001), the structure adopted by AIM seems to suit the situations found in many former SU countries. However, the adaptation needed for any public-

private mix of extension must be thoroughly monitored to allow institutional learning and development, and advisors initially should not be left alone to negotiate fees with farmers.

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REFERENCES

- Adams WM, Watson EE, Mutiso SK, 1997. Water, Rules and Gender: Water Rights in an Indigenous Irrigation System, Marakwet, Kenya. Development and Change 28 (4): 707
- Albrecht H, Bermann H, Diederich G, Grosser E, Hoffmann V, Keller P, Payr G, Suelzer R, 1989. Agricultural extension. Volume 1: Basic concepts and methods. GTZ Rural Development Series. No. 212.
- Ameur C, 1994. Agricultural Extension: A Step Beyond the Next Step. Technical Paper 247. World Bank, Washington, D.C.
- Antholt C, 1994. Getting Ready for the Twenty-First Century: Technical Change and Institutional Modernization in Agriculture. Technical Paper 217. World Bank, Washington, D.C.
- Babaev AG, 2006. Economic and Social Context of the Vegetable System in Azerbaijan. 21-24 pp. in Kuo CG, Mavlyanova RF. and Kalb TJ. (eds). Increasing market-oriented vegetable production in Central Asia and the Caucasus through collaborative research and development. AVRDC 06-679, Taiwan. 250pp.
- Beeler BJ, 1999. Development of an information and advisory service in Russia and Ukraine. 1999 Conference Proceedings. 15th Annual conference, 21-24 March, Port of Spain, & 25-26 March Tobago, Trinidad. Association for International Agricultural and Extension Education.
- Birkhaeuser D, Evenson R, Feder G, 1991. The Impact of Agricultural Extension: a Review. Economic Development and Cultural Change 39 (3): 607-650.
- Braun A, Thiele G, Fernandez M, 2002. Forever Field Schools and Local Agricultural Research Committee: Complementary Platforms for Integrated Decision-Making in Sustainable Agriculture. AgRen, ODI Agricultural research and Extension Network paper 105, pp. 1-13. London.
- Cleaver K, 1993. A Strategy to Develop Agriculture in Sub-Saharan Africa and a Focus for the World Bank. *Technical Paper* 203. World Bank, Washington, D.C.

- Ekneligoda IA, 1996. Integrated Pest Management in Asia and the Pacific. Report of APO Study Meeting 17-22 July 1995. Country Paper #10: Sri Lanka, Asian Productivity Organization, Tokyo.
- Giovarelli R. and Bledsoe D, 2001. Land Reform in Eastern Europe, Western CIS, Transcaucuses, Balkans, and EU Accession Countries. The Rural Development Institute (RDI), Seattle, Washington.
- Hoffmann V, Kidd A, Lamers JPA, 2000. Reforming the organisation of agricultural extension in Germany: Lessons for other countries. AgRen, ODI Agricultural research and Extension Network paper 98, pp. 1-13. London.
- Ismailov A, 2001. Legal Aspects of Land Reform in Azerbaijan, in Country Studies: Real Estate Privatization in Selected Eastern European and Eurasian Countries 7-8.
- Jamison D. and Lau L, 1982. Farmer Education and Farm Efficiency. Baltimore, Johns Hopkins University Press.
- Katz E, 2002. Innovative approaches to financing extension for agriculture and natural resource management. Conceptual considerations and analyses of experience. LBL, Swiss Center for Agricultural extension, Lindau Switzerland. pp. 1-135.
- Kessler S, 2001. Structuring agricultural extension in Azerbaijan, a country in transition. Analysis of pluralistic extension support with focus on a regional extension service in Zaqatala district. Msc thesis Technische Universitaet Muenchen. Freising Weihenstephan.
- Kidd AD, Lamers JPA, Hoffmann V, 1997. Towards pluralism in agricultural extension. A growing challenge to the public and private sectors. Entwicklung und Laendlicher Raum 3/97: 7-10.
- Kidd AD, Lamers JPA, Ficarelli PP, Hoffmann V, 2000. Privatising agricultural extension: caveat emptor. Journal of Rural studies 16: 95-102.
- Lamers JPA, Dürr G, Feil PR, 2000. Developing a client-oriented, agricultural advisory system in Azerbaijan. Human Resources in

- Agricultural and Rural Development, FAO, Rome, pp. 104-117.
- Lockheed M, Jamison D, Lau L, 1980. Farmer Education and Farm Efficiency: A Survey. Economic Development and Cultural Change 29: 37-76.
- Loolaid U, 2001. The role of contracting for private agricultural advisory services in Estonia. Case study on the world bank AKIS website (www.worldbank.org).
- Nanta P, 1996. Integrated Pest Management in Asia and the Pacific: Report of APO Study Meeting 17-22 July 1995. Country Paper #11: Thailand, Asian Productivity Organization, Tokyo, 1996.
- Pagoda R, El-Beltagy A, Satybaldin A, 2004. An overview of agriculture in central Asia and the Caucasus and CGIAR program for sustainable development. In: J. Ryan, P. Vlek P. and R. Paroda (eds). Agriculture in Central Asia: Research for Development. International Center for Agricultural

- Research in the Dry Areas (ICARDA), Aleppo, Syria, pp. 1-20.
- Republic of Azerbaijan, 2003: State Programme on Poverty Reduction and Economic Development 2003-2005. Baku.
- Sampath T, 1998. Azerbaijan: Farm privatization. In L.A. Norsworthy (ed). Rural Development, Natural Resources and the environment. Lessons of experience in Eastern Europe and Central Asia. World Bank, Washington. pp. 20-23
- Sampath TV. and Janakiram S, 1996. Farm privatisation: a pilot project. Case study of Azerbaijan. Presentation for the agriculture and rural development workshop. Azerbaijan, February 29- March 1, 1996.

Note: Beginning January 2006, the Azeri currency changed to the current Azerbaijani Manat (AZN), however all values are given in the former currency and in USD.

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