Maurer, Klaus; Khadka, Shyam; Seibel, Hans Dieter

Working Paper

Agricultural Development Bank Reform: The Case of The Bank for Agriculture and Agricultural Cooperatives (BAAC), Thailand

Working paper / University of Cologne, Development Research Center, No. 2000,3

Provided in cooperation with:
Universität zu Köln

University of Cologne
Development Research Center
Universität zu Köln
Arbeitsstelle für Entwicklungsländerforschung

Agricultural Development Bank Reform:

The Case of The Bank for Agriculture and Agricultural Cooperatives (BAAC), Thailand

by

Klaus Maurer

in collaboration with Shyam Khadka & Hans Dieter Seibel

Revised December 2000

This paper was prepared for the International Fund for Agricultural Development (IFAD), a specialized agency of the UN in Rome. It is also available as IFAD Rural Finance Working Paper No. 46498 from Y.Diethelm@ifad.org.

Table of contents

ABSTRACT

The Bank for Agriculture and Agricultural Cooperatives (BAAC) in Thailand has gone through four major phases of reform: 1966-74, laying the foundation for individual lending to farmers through joint liability groups; 1975-87, expanding its lending operations through access to commercial bank and donor funds and consolidating its operations by reducing loan channeling through cooperatives; 1988-96, striving for viability and self-reliance, under conditions of controlled interest rates, through savings mobilization, improved loan recovery and increased staff productivity; since 1997, adjusting to prudential regulation by the central bank and diversifying into non-agricultural lending. The result of gradual reform has been the largest outreach by any Agricultural Development Bank: 88% of farm households in Thailand, combined with institutional viability.

Performance Indicators

OUTREACH 1999 (March 2000)

Lending outreach	
Number of registered borrowers	5.0 million
% of farm households in Thailand	88%
Loans outstanding	US$ 5.7 billion
Average loan size (farmer clients)	US$ 2,042
Savings outreach	
Number of deposits by individuals	8.3 million
Deposit volume (incl. Institutional)	US$ 4.5 billion
Average deposit size	US$ 246
Market share in rural deposits	15%

SUSTAINABILITY FY 1999

Capital adequacy	(Capital/Net loans)	9.1%
Portfolio quality	(Past dues/Loans outstanding)	16.5%
Operational self-sustainability	(Income/Operational cost)	228%
Financial self-sustainability	(Income/Operational cost and Cost of funds)	98%
Self-sufficiency in funds	(Deposit to loans ratio)	81%
Efficiency	(Administrative cost/Average loans outstanding)	2.8%
Productivity	(Number of active borrowers/Credit officer)	473

I. INTRODUCTION

The Bank for Agriculture and Agricultural Cooperatives (BAAC) of Thailand was established in 1966 as a government owned agricultural development bank. The mandate of the bank has been to provide agricultural credit to farm households.

BAAC is recognized as one of the few successful examples of specialized agricultural development banks in Asia and the developing world as a whole.[1] The success of BAAC is founded on the achievement of the dual objectives of (a) maximum outreach to millions of farm households as its target clientele and, at the same time, (b) maintaining its financial viability and the sustainability of its operations and services.

In the 33 years of operations, BAAC has gone through a process of reform and gradual transformation from a specialized agricultural lending institution to a diversified rural bank which provides a range of financial services. While this process is still on-going and the transition far from being completed, important lessons can be learned from BAAC's reform experience.

The objective of this case study is to analyze the reform process of BAAC, the major elements contents as well as the phasing of reform, and to draw lessons and distill best practices which may be useful for the reform of agricultural banks elsewhere. Therefore, Chapter II first provides an overview of the reform process in BAAC and depicts the main reform steps in each phase. Chapter III analyses the contents and elements of the reform from a functional perspective and specifically concentrates on six areas of reform. Chapter IV summarizes the main conclusions and lessons learned.

[1] For example, BAAC was praised by the World Bank as one of the few successful rural financial institutions (Yaron 1992).

II. OVERVIEW OF THE REFORM PROCESS IN BAAC

The reform of BAAC must be seen as a process which unfolded in stages over more than 30 years. Major policies, events and personalities (BAAC presidents) have greatly influenced BAAC's development and reform process which are presented here in four phases[2].

Phase I (1966 - 1974): Laying the foundation

The Bank for Agriculture and Agricultural Cooperatives was established by an Act of the Parliament to replace the former Bank for Cooperatives and began operating in November 1966. BAAC's foundation phase was strongly determined by the leadership of the first charismatic president. Incorporating lessons learned from the former bank in the organizational design and instilling training and discipline in BAAC's operations laid the sound financial basis for the bank in his term.

Design of credit technology

During the initial phase, lending to agricultural cooperatives constituted the core business of the new bank, a heritage from BAAC's predecessor, the Bank for Cooperatives. In addition, the policy was greatly influenced by the president who had formerly been a cooperative officer with the agriculture ministry. At the same time, however, BAAC under the guidance of the president developed a new **credit technology**, the joint liability group mechanism, which later was to become a key factor for the success of BAAC and the trade-mark of its lending operations. Client farmers were asked to form small informal groups which served to guarantee the individual farmer's loans from BAAC. This eliminated the collateral problem since many farmers did not have the legal documents showing proof of land ownership.

Constraints and problems

At the end of the first phase, BAAC faced a number of **problems** similar to other agricultural development banks at the time. First, BAAC depended almost exclusively on capital infusions from the government for operating funds. Allocations often came late and the ebbs and flows of government funds were difficult to synchronize with the seasonal credit needs of farmers. The result was a chronic fund shortage. Second, loan recovery rates dropped to as low as 51% in the early 1970s. The performance of agricultural cooperatives was particularly bad. Third, administrative costs had increased to more than 8% in 1974 imposing a serious threat to the financial viability of the bank.

Phase II (1975 - 1987): Consolidation and strengthening of lending operations

Access to commercial bank deposits and donor funds

In 1975, the Bank of Thailand (BoT) issued an agricultural credit policy by which the commercial banks were mandated to lend 5% of their deposits[3] to the agricultural sector. Over the following ten-year period, the credit quota was successively increased to 20% which is applicable until today. Commercial banks could lend the amount directly to farmers or were obliged to deposit with BAAC any portion of the quota they could not disburse directly. The policy marked a turning point in BAAC's operations and the increasing availability of

[2] Drawn partly on Sacay et al. (1996), Chapter III

[3] In the first year (1975), the the quota was based on commercial banks' total loans outstanding. The base was changed to total deposits from 1976 onwards.

commercial bank deposits alleviated the shortage of funds. In addition, from 1975 onwards, foreign funding sources were tapped from international finance and donor agencies, such as OECF, USAID, the World Bank, IFAD and ADB.

Shift from wholesale to retail lending

The recovery problems experienced in lending to agricultural cooperatives on the one hand, and the initial success of the joint liability mechanism in direct lending to farmer clients on the other hand led to a decisive shift in the lending policy: from wholesale lending to cooperatives the bank to retail lending to individual farmers organized in joint liability groups. At the end of the second phase, the bank had formed about 100,000 joint liability groups with 1.5 million members throughout the country, compared to 821 agricultural cooperatives.

Increasing efficiency and reducing cost

The shift from wholesale to retail lending resulted in higher administrative cost and forced the bank to increase efficiency. A key factor in this regard were staff productivity standards which were developed in this phase. Moreover, the computerization program commenced in 1983 which led to considerable gains in efficiency and productivity in the branch offices and field units.

Phase III (1988 - 1996): Rapid growth, outreach expansion and diversification

The third phase has been the most important phase of reform for BAAC. A number of changes, decisions and reform measures initiated a fundamental transformation of BAAC from an agricultural lending institution to a universal rural bank.

Financial sector reforms

Financial policy reforms in Thailand began in 1989 when the BoT eliminated the interest rate ceilings on fixed deposits (one-year and over) of commercial banks. In 1992, all interest rates were liberalized. The financial reforms also gradually removed restrictions on branch opening and liberalized the scope of the agricultural credit allocation policy for commercial banks to include all other kinds of credit in the rural areas. This shift from an agricultural to a rural credit quota latter was of particular importance to BAAC as the commercial banks expanded their rural lending portfolios and, as a consequence, reduced their deposits with BAAC dramatically.

In response to these policy changes, BAAC geared itself towards a more competitive environment and undertook strategic adjustments in its operations in the late 1980s and early 1990s. The bank’s management defined strategies on outreach expansion, savings mobilization and overall efficiency improvement.

Expansion of branch network to maximum outreach

In the third phase, BAAC embarked on an aggressive expansion of the branch network and a decentralization of operations. Within ten years, the number of branches was raised from 82 to 535, the number of field offices from 582 to 875. Through this measure, the outreach to its target clientele, i.e. farm households, was expanded to the maximum, comprising about 85% of all farm households in the country.

Savings mobilization

In the late 1980s, BAAC recognized the importance of savings mobilization which became a core activity and key factor for the evaluation of branch performance. The liberalization of the agricultural credit policy and the withdrawal of commercial banks' deposits further accelerated these efforts. During the third phase, rural deposits grew to be become the main source of funds accounting for about two thirds of BAAC's operating fund.

Improving loan recovery

Major efforts were directed at improving loan recovery. The recovery rate had been lifted from the very low levels of the 1970s but it was still unsatisfactory throughout the 1980s. It was only during the third phase that the portfolio quality significantly improved. This development was particularly important with regard to savings mobilization with the quality of loans as an essential guarantee for the safety of deposits.

Increasing productivity to maintain financial viability

As BAAC's lending rates remained politically controlled and the spread extremely limited, the management continuously emphasized efficiency and staff productivity. Operational cost was reduced to almost 4% of loans outstanding in the mid-1990s, close to the level of commercial banks which operate with higher loan sizes and fewer customers. Staff productivity was maintained at high levels in terms of number of clients and tripled in terms of volume. The continuous increase in efficiency and productivity were key factors for BAAC in maintaining its financial viability.

Phase IV (since 1997): The effects of the financial crisis and the reform agenda ahead

The severe financial and economic crisis which unfolded after the floating of the Thai currency in July 1997 marked another milestone in BAAC's development and reform process. The crisis has particularly affected the banking system with about half of all loans outstanding being classified as non-performing and the problems are far from being solved. The crisis has exposed BAAC to major challenges, but has also brought opportunities.

Losses from the devaluation of the Thai currency

The devaluation of the Baht had an immediate impact on BAAC. As the bulk of BAAC's foreign borrowings were not secured against exchange rate risks, the revaluation of the foreign debt wiped out almost half of BAAC's equity capital at the end of FY 1997. In 1998, the equity was replenished by a massive capital infusion from the government and capital adequacy was restored.

Rise in non-performing loans

Already before the outbreak of the crisis, BAAC's loan recovery has started to deteriorate. This trend was accelerated by the general downturn in economic activity and by the spreading incentive problems (moral hazard) caused by the huge amount of non-performing loans in the banking system and the general bail-out provided by the government. At the end of the 1990s, BAAC is saddled with a severe recovery problem which requires utmost attention and swift efforts.

Safe haven for depositors

In the aftermath of the crisis, BAAC has experienced a tremendous inflow of deposits from investors who regard BAAC as a safe haven in the wake of considerable instability of the private banking system. These deposits provide an opportunity on the one hand as a source of funds, on the other hand, they create a challenge for BAAC with regard to safeguarding and maintaining the investors' confidence in the safety of their deposits. They may also expose BAAC to liquidity risk as investors may suddenly withdraw these predominantly large-scale deposits as soon as the situation in the private commercial banks ameliorates.

Prudential regulation and supervision

In October 1998, BAAC came under the banking supervision of the Bank of Thailand (BoT). With this change, the bank has become subject to prudential regulation, such as capital adequacy and loan loss provisioning. More stringent rules and performance standards may be painful in the short term but they will help BAAC in its struggle for financial viability and self-sustainability in the long run. Furthermore, the BoT's supervisory function will strengthen BAAC's bargaining power in negotiations with the government and politicians in protecting its financial health and warding off interventions with negative effects on its financial performance.

Diversification into non-farm lending

Another opportunity from the crisis has been the recent amendment of the BAAC Act finally allowing the bank to expand its lending operations to non-farm activities, an objective the bank has fought for many years. High unemployment and the return of migrant workers to their villages have induced the government to promote self-employment and entrepreneurship in rural areas where BAAC is expected to play a major role. The non-farm window has set the pace for further growth of BAAC which has already reached a saturation point with regard to agricultural lending and will foster BAAC's transition from a specialized agricultural lending institution to a universal rural bank in the coming years.

III. FUNCTIONAL AREAS OF REFORM

1. Government ownership and the resulting governance structure: a permanent challenge for BAAC to safeguard operational autonomy

1.1 Government ownership and future privatization

BAAC was established in 1966 as a government-owned specialized bank to provide credit to agricultural producers. Until today, ownership has largely remained with the government. More than 99% of the shares are held by the Ministry of Finance and the remaining balance mainly by agricultural cooperatives. Since 1998, BAAC has been permitted to sell shares to its employees and to its clients in general. Some shares have been acquired by BAAC staff and employees. However, before going public on a wider scale, BAAC must adhere to certain regulations and procedures stipulated by the security market authorities, e.g. due diligence. Furthermore, BAAC is still working on an internal computerized system for the sale of shares and the registration of shareholders throughout the country. Privatization is to start as soon as these issues have been solved.

1.2 Governance structure

BAAC is governed by a Board of Directors with eleven members. The Board controls the policies and business operations of the bank. The composition of the Board is outlined in the Act of 1966 to include representatives of the Prime Minister's Office, the Ministry of Finance, Ministry of Agriculture and Cooperatives, Cooperative Promotion Department, the Agricultural Land Reform Office and the Bank of Thailand. The president of BAAC is an ex-officio member of the Board. The Deputy Finance Minister acts as the chairman of the Board. Overall, the Board has been comprised mainly of public officials representing the interests of the government while expertise and experience in banking and financial business has been scarce.

The Board composition has several important implications. Firstly, it implies a primarily short-term agenda which at times may conflict with the long-term objective of financial health and sustainability of the institution. Secondly, major internal policies are based on political considerations rather than financial business principles, e.g. the setting of lending rates and the restriction of BAAC's lending operations to agriculture only. Thirdly, due to its highly political status as the major agriculture arm of the government, BAAC has to accommodate the particular interests of ministries and government agencies by implementing a considerable number of „special projects“ in addition to its regular lending operations.

Such politically motivated restrictions and interventions frequently have had a detrimental impact on the financial viability of the bank. As a response, BAAC has adopted a strategy of „interventions against compensations“ through intensive lobbying and dialogue („coffee shop talks“) with the government and members of parliament. In most instances, the BAAC management has been successful in negotiating restrictive policy directives against preferential treatment and access to subsidies to mitigate or neutralize the effects on the financial sustainability (see chapter below for details). However, in few cases BAAC was forced to accept government interventions without compensations. A severe case occurred recently when the government which came into power in 1995 forced BAAC to reduce its lending rate for small loans under Baht 60,000 (US$ 2,400) to below cost-covering levels. More than a third of BAAC's loan portfolio was affected at the time.

1.3 Operational autonomy

Government interventions were mainly confined to the policy level while the operational level was kept free from interventions, thereby ensuring a **high degree of operational autonomy**. BAAC has managed to ward off pressures from political interest groups and to resist interference from local government in borrower selection and lending decisions. Unlike other governments in South Asian countries, the Thai government has restrained from politically motivated loan waivers and debt forgiveness programs. In 1998, the government backed and supported BAAC in its rejection of a „debt moratorium“ demanded by farmers' organizations who - inspired by political interest groups - staged several weeks of demonstrations and rallies.

1.4 From government control to prudential regulation and supervision

Until recently, BAAC has operated under the supervision of the Ministry of Finance unlike other banks which are supervised by the Bank of Thailand (BoT). The annual external audit was performed by the Office of the Auditor General of Thailand, a government agency. Also, BAAC's performance has been assessed by the Thai Rating and Information Service (TRIS), a framework designed for state-owned enterprises.

In the wake of the financial crisis, an important change occurred in October 1998 when the government decided to place BAAC under the prudential regulation and supervision of the BoT. In the first place, not everyone in BAAC was particularly happy about this move as the bank is now subject to more stringent rules and regulations, for example on capital adequacy, on classification of loans and loan loss provisioning. Prudential regulations and banking standards in line with international standards set out in the Basle Agreement are currently being developed by the BoT with assistance from the IMF and the World Bank. However, the shift represents a major reform step from which BAAC will benefit in the long run. With the BoT on its side, BAAC has a strong ally in its struggle to protect its financial viability and sustainability.

2. Organization and management: expansion and decentralization towards maximum client outreach

2.1 Decentralization of operations

BAAC carries out its operations through a four-tier organizational structure: the field offices, the branches, the provincial offices and the head office. The field offices represent BAAC's most important outreach unit covering all districts of the country. Each field office employs eight to nine credit officers who are responsible for screening and selecting borrowers, appraising loans and monitoring repayment. Field offices are not involved in cash transactions and, thus, do not have facilities for disbursing loans or for collecting debt repayments and mobilizing deposits. These functions are assumed by the branch to which the respective field office is affiliated.

Over the years, management and decision-making have been successively decentralized. The branch managers have far-reaching authority. They can approve loans of up to Baht 500,000 (US$ 12,500). As 98% of all loans extended by BAAC are generally below this ceiling[4], lending decisions are almost completely in the hands of the branch managers.

[4] Ref. Table below.

In 1997, provincial offices - with a senior manager acting as provincial director - were created in an effort to decentralize management control, monitoring and supervision. A provincial director guides and supervises between 6 and 10 branches, depending on the size of the respective province. The provincial directors, in turn, report to the head office in Bangkok.

2.2 Expansion of the branch network

A major factor for BAAC's success in client outreach was the massive expansion of the retail network over the past decade. For twenty years, BAAC had maintained only one branch office in each of the country's 76 provinces, with 7 to 9 affiliated field offices doing the groundwork for the lending operations. For loan disbursement and repayment farmer clients had to travel to the BAAC branch office in the provincial capital. For most of the farmers the distance and the transaction costs involved were considerable, for many prohibitive.

In 1988, BAAC's management took the major decision to decentralize and down-scale its banking operations from the provincial to the district level and issued a policy of upgrading 10 to 25 field offices into sub-branches and - ultimately - full branches every year. Since then, the number of branches has increased by a factor of eight. At the same time, additional field offices were opened. Today, BAAC has a dense and highly decentralized network of 586 branches and 887 field offices reaching out to the villages (see Table 1 below).

Table 1: Expansion of retail network

End of Fiscal year	1966	1975	1986	1990	1994	1999
Provincial offices	--	--	--	--	--	72
Branches and Sub-branches	15	58	70	168	304	586
Field Offices	n.a.	n.a.	582	615	804	887
No. Of staff at branches and field offices	266	2,248	5,230	6,845	9,899	13,082

<u>Source:</u> BAAC

The physical expansion was accompanied by a considerable increase in human resources. The number of staff more than doubled from 5,230 in 1986 to 13082 in 1999. Simultaneously, all the branches and most of the field offices were computerized, thus raising productivity and efficiency levels. This allowed BAAC to serve an even larger number of clients.

2.3 Branches as profit centers

The BAAC branches have been organized as profit centers. This has ensured a high degree of accountability and responsibility among branch managers and branch staff. Profitability - expressed by return on assets (ROA) - has become the single most important criteria for performance assessment and evaluation.

In 1997, BAAC introduced the transfer price mechanism. The transfer price is the internal interest rate applied on funds transferred between the branches and the head office. When a branch requires funds for its lending operations, it can borrow from the head office and is charged with the transfer price, and vice versa, when a branch has been active in savings mobilization and has excess funds, it can deposit these funds with the head office and is credited with the transfer price. In principle, the transfer price is set by the management in accordance with market cost of funds but it can also be used as an important policy instrument.

In the initial period, the transfer price was set by the management at a relatively high level above the interest rate for fixed deposits, thus making savings mobilization much more attractive than borrowing from the head office. This policy gave a boost to savings mobilization. In the present situation of excess liquidity, the transfer price has been reduced accordingly.

However, the profit center concept as it is implemented by BAAC at present still has some shortcomings as not all cost items are fully and timely accounted for by the branches. One example is the loan loss provisions. At year end, the branch accountant calculates a tentative loan loss provision for management accounting purposes but it is not posted in the general ledger as an expense. Hence, branch profits are overstated and loose some of their function as precise and early signaling device for branch managers. BAAC is currently working on a system to eliminate this shortcoming by the end of 1999.

2.4 Management Information System (MIS)

BAAC's management information system has not followed suit with the rapid development and fundamental changes that occurred in recent years. The MIS is centralized and geared towards the middle and top management in the head office. Accordingly, at the branch level MIS is largely perceived as a system of reporting to head office. As a matter of fact, every month branch staff have to prepare more than one hundred reports to different departments in the head office, many of them reportedly overlapping and duplicative. The system has major weaknesses in providing appropriate and timely management information to the managers at the operational level, including the branch managers, the field unit chiefs and, ultimately, the credit officers as portfolio managers.

Another major problem is that the computer systems and programs are „home-grown" with new modules added continuously. BAAC has decided to revamp the entire system and to design and install a new system from scratch. This encompasses both sub-systems of a modern financial institution's MIS, i.e. the financial management information system (FMIS) and the customer information system (CIS). At present, BAAC does not have an integrated customer information system which combines all data on loans, deposits and other transactions of a particular client in one file. At present, the portfolio system is handled by the credit chief and is limited to borrower clients while depositors are recorded by the tellers in a separate system. One of the consequences is, for example, that credit officers have no access to information about the savings performance of their borrower clients.

The system has functioned fairly ten years ago when BAAC was primarily a lending institution with a limited number of 70 branches. In the meantime, however, BAAC has expanded its scale and scope considerably, decentralized its operations and designated hundreds of managers all of whom require precise and timely management information in an adequate form. The bank must swiftly develop an improved MIS which reflects the changes and takes into account the needs of BAAC's managers at all levels.

3. The credit delivery mechanism: from wholesale to retail lending

3.1 BAAC's successful credit technology: Joint liability groups

The development of the Joint Liability Group concept dates back to the foundation of BAAC in 1966. Because few Thai farmers had land title documents to use as collateral in the 1960s, BAAC adopted joint liability as principal form of security for small loans. Joint liability has been at the heart of the BAAC's lending ever since.

The joint liability groups are self-formed by people who know and trust each other, and vary in size from a minimum of 5 to a maximum of 30 and an average of about 15 members. More than one group may be formed in a village. Generally, the JLGs cannot be compared to self-help groups known from other contexts in terms of activities, organization and administration. The groups' organization is simple with only a group leader elected among the members who acts as the liaison person to the BAAC credit officer. The groups have no names, only BAAC registration numbers. There is no group fund and no financial transactions within the group and, hence, no financial administration. Therefore, the groups do not function as financial intermediaries.

Individual loans up to Baht 100,000 are granted on the basis of joint liability with the limitation, however, that BAAC does not loan out more than 60% of the annual income of farmers. Loans beyond Baht 100,000 must be secured by tangible collateral, usually through mortgage of land and buildings.

All transactions are conducted between BAAC and the individual members, also the group leader has no role in disbursements or recovery of cash amounts. The groups help BAAC in borrower screening, loan appraisal and verification of data about loan applicants. Peer pressure is activated at the time of loan repayment as fresh loans are only available to individual borrowers when all members of his/her have repaid. The group leader is responsible for distributing repayment notes and reminding the members of their obligations.

3.2 Marked shift from wholesale to retail lending

The initial success of direct lending to farmer clients organized in small joint liability groups on the one hand and the problems experienced in lending to agricultural cooperatives on the other hand led to a shift in the lending policy during the second phase (1975 to 1987). BAAC decided to embark primarily on retail lending to farmer clients. From the foundation of BAAC until today, the share of wholesale lending through cooperatives and farmers' associations dropped from 70% to only 7%, as illustrated in Table below. Direct lending to farmer clients organized in JLGs has therefore become the mainstream lending program.

Table 2: Allocation of loans to farmer clients (retail) and farmers' organizations/intermediaries (wholesale)

	1967	1975	1987	1994	1999
Direct farmer clients (JLG)	30%	55%	86%	92%	93%
Cooperatives and Farmers' Associations	70%	45%	14%	8%	7%
Total lending	100%	100%	100%	100%	100%

The major expansion, however, occurred during the third phase (1988 to 1996). The major factor behind this development has been the rapid extension of the retail branch network during the same period. Within a period of ten years, the number of groups and members more than doubled while the loan portfolio increased eight-fold (see Table 3).

Table 3: Joint Liability Groups and Members

Year	No. of JLGs (estimates)	No. Of Members (million)	Loans Outstanding (billion Baht)
1986	96,000	1.5	21.9
1987	107,000	1.6	21.5
1988	113,000	1.7	24.0
1989	126,000	1.9	29.7
1990	140,000	2.1	36.9
1991	150,000	2.3	47.8
1992	170,000	2.6	66.1
1993	180,000	2.9	85.6
1994	206,000	3.1	97.7
1995	220,000	3.3	127.2
1996	228,000	3.4	162.6
1997	228,000	3.4	177.5
1998	228,000	3.4	192.8
1999	233,000	3.5	212.8

Source: BAAC

From 1992 to 1996, BAAC tested another model of wholesale banking through financial intermediaries. In the framework of an Asian-wide program of linking banks and self-help groups promoted by APRACA with technical support from GTZ of Germany, BAAC experimented with linking informal self-help groups to its banking services. The self-help groups consisted of the so-called Production Credit Groups (PCG) promoted by the Community Development Department of the Ministry of Interior and Farm Women Groups (FWG). These groups - being primarily savings associations - were expected to function as financial intermediaries by borrowing wholesale from BAAC and lending retail to their members. The experiment yielded disappointing results due to a number of reasons.[5] First, the majority of the groups had limited skills in financial management and showed little interest in acting as financial intermediaries. Second, the system of training and guidance by the promoting institutions had inherent weaknesses. Third, the groups were not interested in borrowing from BAAC, partly because most of the members resp. their husbands were simultaneously members of BAAC joint liability groups and already registered as BAAC borrowers. As a consequence, the experiment was phased out and finally terminated in 1996.

4. Financial policies and products: from agricultural credit to rural financial services

4.1 Credit services

Categories of credit services

BAAC credit services can be divided into two broad categories according to the delivery channels outlined in the previous section:

- retail credit to individual farmers (organized in joint liability groups) accounting for 92% of the portfolio

[5] For details see Maurer (1997)

- wholesale credit to farmer institutions (agricultural cooperatives and farmer associations) accounting for 8% of the portfolio

Retail credit to individual farmers is again broken down into
- normal lending which accounted for 91% in 1998
- special project lending which accounted for 9% in 1998

Therefore, normal lending to individual client farmers represents the mainstream credit program of BAAC accounting for about 84% of the total loan portfolio in 1998. The following analysis is thus focused on this mainstream program.

Types of loans

BAAC provides three types of loans to individual client farmers for agricultural production:
- short-term loans for working capital in agricultural production, for postponement of sale of farm produce (paddy pledging scheme) and as immediate cash credit;
- medium-term loans for smaller investment in agricultural working tools and for livestock;
- long-term loans for larger investment in fixed agricultural assets.

For almost 30 years, BAAC had been restricted in its lending policy which was exclusively confined to agricultural production. Only in 1993, the bank was given the permission to extend loans also for farm-related activities, such as agro-processing and marketing, up to a maximum of 20% of its portfolio. Farm-related lending started in 1994 and has increased to about 7% of the portfolio.

Table 4: Types of loans and share of portfolio

Type of loan	Share in loan portfolio to individual client farmers (1999)
I. Agricultural production	93%
• Short-term (6 to 18 months)	40%
• medium-term (3 years)	20%
• long-term (15 years)	33%
II. Farm-related activities	7%

In the initial years, loans were predominantly short-term because resources were inadequate and the demand for farm loans was mostly for seasonal cropping needs. A major factor behind the steady growth in the volume of long-term loans has been the availability of long-term foreign funds since the early 1980s.[6] Today, BAAC's loan portfolio is rather evenly spread with a significant proportion of medium- and long-term loans.

Lending interest rates

BAAC's lending rates have been positive in real terms except in 1980 and 1981 when inflation soared to almost 20%. Since then, inflation came down to below 5% and over the past five years has moved in a narrow span between 5% and 6%.

BAAC's lending rates are set and periodically adjusted by the Board taking into account the blended cost of funds and operating expenses. However, political considerations have also had a bearing on determining the level and the structure of lending rates. As a matter of

6 See Sacay et al. (1996), p.24.

principle, the BAAC Board has kept the interest rates at one or two percentage points lower than commercial bank rates. This policy ensured that BAAC interest rates moved with the market.

Table 5: Interest rates on loans to client farmers (March 1998)

Loan size	Interest rate
below Baht 60,000	11.5%
Baht 60,000 - 150,000	12.5%
Baht 150,000 - 300,000	13.5%
Baht 300,000 - 500,000	14.5%
Baht 500,000 - 1,000,000	15.5%
Baht 1,000,000 - 5,000,000	16.5%
more than Baht 5,000,000	17.0%
weighted average (1998)	13.4%

The structure of interest rates according to loan sizes, however, is primarily based on political grounds. As illustrated in Table 5, loans are priced progressively: the larger the amount, the higher the interest rate. The rationale behind this is an intended distribution effect through cross-subsidization of small borrowers by larger borrowers. The lending rates apply to all types of loans, irrespective of the purpose and term of the loan. However, in August 1999, the Board decided to introduce a lending rate structure based on loan quality rather than loan size. Clients are subject to AAA, AA and A and B rating based on their respective past repayment records. The minimum lending rate is charged to the least risky client in AAA class, and higher rates are charged for clients in the higher risk classes.

Recovery performance

Loan recovery is closely monitored and is one of the key indicators for assessing branch performance. BAAC uses two ratios for measuring recovery performance, the annual recovery rate and the past due ratio. The recovery rate is defined as the proportion of total collection during a given year to total loans matured. The past due ratio is measured as the proportion of loan principal in arrears in a given year to total loans outstanding. BAAC's monitoring and reporting have also emphasized the aging of arrears which serves as the basis for provisioning.

In the early years, BAAC faced considerable problems with recovery of loans in the early 1970s. Repayment discipline and performance was particularly weak among agricultural cooperatives which at the time absorbed the lion share of BAAC's loans. Individual client farmers who were organized in joint liability groups fared much better in repayment. This pattern has remained the same until today: For most of the past decade, the recovery rate on loans to individual client farmers was around 85% compared to less than 70% on loans to agricultural cooperatives, as illustrated in Table 6 below.

Since the mid-1980s, BAAC has strongly emphasized loan recovery and, as a result, the performance improved considerably from 1986 to 1992 when the repayment rate[7] of individual client farmers almost reached 90%. In this period, BAAC has effectively institutionalized a system of strictly enforcing loan repayment discipline. In this context, the joint liability mechanism has been a key factor. For seasonal loans, the bank has insisted that all members of a joint liability group must fully repay their loans before any one member of the same group may obtain a new loan. This principle which has been consistently implemented

[7] The repayment rate is defined as the ratio of loan principal repaid to loan principal matured during the year. The past-due ratio is defined as loan amount in arrears to loans outstanding.

has activated peer pressure among the members. There have been reports that BAAC clients resort to short-term borrowing from informal lenders in order to pay their BAAC loans on schedule.

Table 6: Recovery performance 1986 to 1998

Year	Individual client farmers	Agricultural cooperatives	Combined (weighted)
1986	74%	45%	69%
1987	75%	49%	71%
1988	77%	57%	74%
1989	84%	69%	82%
1990	85%	67%	82%
1991	88%	68%	84%
1992	89%	69%	86%
1993	89%	68%	84%
1994	88%	68%	86%
1995	86%	70%	85%
1996	87%	69%	86%
1997	83%	62%	81%
1998	75%	60%	74%
1999	75%	59%	74%

Source: BAAC Annual Reports

In alternate of the crisis, the recovery performance has successfully deteriorated and experienced a dramatic decline to 75% in 1998 and 1999, the lowest level in more than 10 years. In 1998, the past due ratio reached more than 16%. A considerable proportion of almost 10% are past due by more than one year, the highest share since more than a decade (see Table 7).

Table 7: Past due ratios and aging structure of loans to individual client farmers

Year	Total	One year	2 to 5 years	over 5 years
1986	15.9%	5.6%	8.6%	1.7%
1987	21.8%	12.9%	7.3%	1.6%
1988	16.3%	8.8%	5.9%	1.5%
1989	11.4%	5.8%	4.4%	1.3%
1990	11.6%	7.5%	2.9%	1.2%
1991	9.2%	6.1%	2.1%	1.0%
1992	7.5%	5.2%	1.6%	0.8%
1993	9.2%	7.0%	1.6%	0.7%
1994	8.1%	6.1%	1.5%	0.5%
1995	8.5%	6.6%	1.6%	0.3%
1996	7.5%	4.4%	2.8%	0.4%
1997	10.9%	6.8%	3.8%	0.4%
1998	16.2%	9.0%	6.7%	0.5%
1999	16.5%	6.2%	9.5%	0.6%

Source: BAAC

The effects of the financial and economic crisis unfolding in 1997 and 1998 have been a major factor behind this deterioration. In the view of the general situation of the commercial banking system with about 48% of the entire loans being classified as non-performing loans (NPL), BAAC has been able to maintain a comparatively favorable position. The large proportion of so-called „strategic NPL“ - with large and prominent borrowers being rather unwilling than unable to repay - has created moral hazard and incentive problems which have increasingly undermined the general repayment discipline, also among BAAC clients. BAAC's current recovery problem is a serious one and the management is aware that it needs to be urgently addressed.

In the past, BAAC has managed to ultimately recover most of the loans, even those with past dues of several years. Loans are kept in the books and are followed up for up to ten years. For most of the past decade, the loan loss ratio - i.e. loans written off to average loans outstanding - has been around 0.1%. Only in 1998, the year of crisis, the loan loss ratio jumped to 0.7%. However, since BAAC has recently come under the regulation and supervision of the Bank of Thailand, more stringent rules on provisioning and write-offs will apply in future and - as a consequence - the loan loss ratio is likely to increase accordingly.

Non-farm lending

For many years, BAAC has struggled for an amendment of the 1966 Act and to obtain permission to expand its lending operations to non-farm activities in rural areas. In 1993, a first window was opened when BAAC was allowed to provide loans for farm-related activities with refinance from the Asian Development Bank. In 1997, a small grant of Baht 10 million was provided by GTZ of Germany under its technical cooperation with BAAC for setting up a revolving credit fund for non-farm lending. At the time, BAAC was not allowed to use own funds for this purpose. The objectives were (a) to develop a system and procedures for non-farm lending and conduct a pilot-test in selected branches and (b) to produce a show-case for supporting BAAC in its policy dialogue with the government. Finally, in January 1999, the cabinet and the parliament approved the amendment of the BAAC Act and allowed the expansion of lending operations into non-farm activities up to the extent of 20% of the total portfolio. This decision has further widened the scope for the transformation of BAAC from an agricultural lending institution to a universal rural bank. BAAC is presently finalizing the systems and procedures for nation-wide implementation, drawing from the lessons learned from the pilot test.

Special projects: a heritage from supply-leading finance

In addition to its normal lending business, BAAC carries out a large number of special agricultural development projects and policy lending programs. In 1998, there were around 200 special projects and programs, some nationwide, some of them regionally concentrated. The outstanding loan volume in 1998 accounted for 9% of total loan portfolio. However, the workload associated with these special projects is tremendous. Branch staff and credit officers complain that special projects consume more the bulk of their time while they account for less than 10% of the portfolio.[8] This has distracted the attention of the credit officers from their mainstream lending activities which in the current situation of low recovery requires full concentration. In addition, most special lending programs supported by government departments carry preferential interest rates which has occasionally led to some confusion among the clients. BAAC is compensated by the government in the form of fees and interest compensation. A rationalization and reduction in these special projects and programs would be urgently required.

4.2 Deposits

During the first twenty years of operations, BAAC concentrated almost exclusively on credit services while savings largely remained - like in many agricultural development banks

[8] Personal interviews with branch staff in the Northeastern Region in 1999.

elsewhere - the „forgotten half“ of rural finance. During the early years, BAAC implemented a **compulsory** savings scheme for borrowers, requiring that each borrower deposit an amount equivalent to 5% of the loan value in a savings account. The scheme was terminated in 1979 because it was costly to administer, especially since its branch offices were at that time ill-equipped to manage funds. These deposits also represented an expensive source of funds compared to alternatives then, with interest rates of 9% paid on deposit balances.

Only since the mid-1980s, BAAC has recognized the importance of **voluntary** savings mobilization, not only from its own perspective of deposits as a stable and reliable source of funds but also from the viewpoint of its farmer clients who need safe, liquid and convenient deposit facilities. The bank realized that there is a strong demand for deposit facilities especially among farm households who are forced to synchronize income and expenditure in the course of the agricultural production cycle. Furthermore, savings act as a buffer against the uncertainty which governs the rural economy. In the wake of unforeseen events and emergencies, financial savings perform a basic insurance function. Reports from the field officers revealed that farm households came to BAAC for credit services but they would choose the Government Savings Bank or the commercial banks for depositing their savings.

Over the past decade, the bank has campaigned vigorously to mobilize rural savings. The Savings Promotion Division was set up in the head office and assigned the task to develop strategies and design appropriate savings products. The branches were instructed to set annual mobilization targets, and savings mobilization became one of the major criteria for evaluating branch performance. As a result, BAAC has achieved a remarkable success in deposit mobilization. Deposits from the general public grew at annual rates of more than 30% and increased from only Baht 7 billion in 1986 to almost Baht 180 billion in March 2000.

Design of demand-oriented savings products

BAAC offers a range of savings products aimed at different target groups and with different liquidity/yield combinations, as illustrated in Table below. The standard instruments are the normal savings passbook on the one hand and fixed deposits for three, six and twelve months on the other hand. Normal savings carry an interest rate of 5% while fixed deposits are generally higher-yielding, e.g. at 10% to 12% in 1998. The interest rates on both types of products closely follow the market rates of commercial banks.

Table 8: Product mix according to target group, liquidity and yield

Product	Target Group	Liquidity	relative yield
1. Normal Savings (Tamada)	small savers	high	low
2. Lucky savings (Thawi Choke)	small savers	high	low/+ lucky draw
3. Special Savings (Piset)	medium to large	limited	medium/high
4. Savings bond (Thawi Sin)	middle-class/urban	low/limited	very low/+ lucky draw
5. Fixed Deposits	middle-class/urban	low	medium

Source: Maurer (1998)

In addition, BAAC offers a Special Savings facility which requires a minimum balance of Baht 10,000 and therefore addresses the more well-to-do customers. Interest rates are highly attractive (9.5% to 11% in 1998) and comparable to fixed deposit rates. The liquidity of this facility is limited as depositors may withdraw only once a month. However, the attractive feature of this product is that interest income is exempted from taxation. Only government-owned banks including BAAC are entitled to offer this kind of facility which provides them with a comparative edge over private commercial banks.

In 1995, BAAC introduced an innovative savings product primarily targeted to the low-income market called *Om Sap Thawi Ckoke* or Lucky Savings. This product was developed by BAAC Savings Mobilization Division together with GTZ's Micro-finance Linkage Project. The minimum opening deposit is only Baht 50 (US$ 1,25) and, although the interest rate of 4% paid on deposits is one percentage point below the standard rate BAAC pays for savings accounts, the account owner is entitled to participate in regular semi-annual lotteries offering goods popular in rural areas as prizes. After successful pilot-testing in selected branches, the product has been launched nationwide in early 1996 and has so far attracted 1.6 million depositors.

The most recent product introduced in 1997 in with the objective of attracting long-term funds is the BAAC Savings Bond (Thawi Sin). The savings bonds have a nominal value of Baht 500 (US$ 12.50) each and a term of five years. The five-year bonds carry an interest rate of only 2% p.a. but - as a compensation for the low yield - the bondholders participate in a highly publicized lottery at national level.

More than two thirds of BAAC's deposits are generated through the various kinds of savings products while fixed deposits accounted for less than a third at the end of FY 1998.

Individual and institutional depositors

Depositors are broadly classified into (a) private individuals and (b) institutions. As can be seen in Table below, individuals accounted for the major share (60%) while institutions held 40% of total deposits in March 1999.

Institutional depositors include primarily provincial and district government offices and line agencies and, to a smaller extent, agricultural cooperatives and farmers' associations. BAAC has benefited from the regulation that local government offices must keep their budget funds in an account with a government-owned bank. Branch managers have been lobbying intensively to attract these funds. Institutional deposits are made up of a relatively small number of accounts with large amounts. They are held in both savings and fixed deposits on an almost equal balance. Furthermore, institutional deposit accounts are subject to considerable fluctuations depending on budget allocations and expenditures which exposes the bank to a considerable liquidity risk. The branches suffered from massive withdrawals of funds during the year of crisis 1997/98 when austerity measures were imposed under the auspices of the IMF.

Table 9: Volume of deposits by type and source (March 1999)

	Savings Deposits	Fixed Deposits	Sub-total
Private individuals	47%	13%	60%
Institutions	21%	19%	40%
Sub-total	68%	32%	100%

Deposits from individuals generally have been much more stable. Almost 70% of deposits from private individuals were held in simple savings accounts, a pattern which is typical for rural customers. As of March 1999, almost half (47%) of all deposits originated from individual savings accounts. In the past, this source has been the most stable and dynamic segment of BAAC's deposit market. The number of savings accounts increased from 4.1 million in 1994 to 8.3 million in 1999 (see Table 10 below), adding about one million savings accounts every year.

The size distribution of savings accounts by number and volume reveals a considerable concentration. The vast majority (98%) of the savings accounts record a balance of less than

Baht 50,000 (US$ 1,250). This may indicate that the majority of BAAC's depositors belong to the lower-income brackets. However, these accounts generate only 26% of the deposit volume while a few large depositors (8,391 clients or 0.1% in 1999) account for 31% of the volume. This concentration has increased during the past two years of the financial crisis indicating that a number of investors have resorted to BAAC as a safe haven. This trend has further accelerated well into 1999 and has left BAAC awash with liquidity. As these funds are highly volatile, the liquidity risk from sudden withdrawals are considerable.

Table 10: Size distribution of savings deposits from private individuals

End of FY	1994	1995	1996	1997	1998	1999
Number of accounts	4,148,041	4,397,091	5,561,608	6,665,798	7,576,935	8,297,844
of which:						
1 – 5,000	83%	82%	84%	85%	86%	86%
5,001 – 50,000	14%	16%	14%	12%	12%	11%
50,001 – 100,000	1%	1%	1%	1%	1%	1%
100,001 – 500,000	1%	1%	1%	1%	1%	1%
500,001 – 1,000,000	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
1,000,001 +	0.0%	0.1%	0.1%	0.2%	0.1%	0.1%
Volume (Baht billion)	23.8	34.2	43.8	56.9	74.5	78.2
of which:						
1 - 5,000	10%	9%	10%	9%	8%	8%
5,001 – 50,000	30%	29%	26%	21%	17%	18%
50,001 – 100,000	13%	12%	11%	10%	9%	9%
100,001 – 500,000	24%	23%	24%	25%	23%	25%
500,001 – 1,000,000	7%	6%	7%	7%	7%	9%
1,000,001 +	17%	21%	22%	29%	36%	31%
Average balance (Baht)	5,736	7,786	7,871	8,530	9,830	9,421

Source: BAAC. Savings Promotion Division.

4.3 Other services

BAAC provides a range of complementary services specifically designed to the needs of rural low-income clients. Since 1988, BAAC has supported the establishment and operations of agricultural marketing cooperatives (AMC). Their main function has been the supply of quality farm inputs to farmers. The cooperatives' offices and warehouses are housed in the premises of BAAC branches.

Another innovative feature is the provision of basic insurance services to rural customers. To this end, BAAC has initiated the establishment of funeral associations among its clients which provide financial assistance to the member's family in case of death. BAAC has adopted the system from small indigenous funeral societies which are still found in the villages. With the administrative support from BAAC officers, the BAAC associations can accept a few thousand members and thus take advantage of economies of scale and scope.

4.4 Outreach performance

Outreach quantity

The results in client outreach have been impressive. With the expansion of the branch network since 1988, the number of borrowers has doubled. Today, 5 million farm households are registered as BAAC clients (see Table 11).[9] This represents about 88% of the total farm households in Thailand. The extent of this outreach is unique in Asia and in the developing world as a whole.

Table 11: Borrower Client Outreach (registered clients in millions)

End of financial year	1986	1990	1994	1998
Direct farmer clients (Members of Joint Liability Groups)	1.5	2.1	3.1	3.5
Members of Cooperatives and Farmers' Associations	0.9	1.0	1.3	1.5
TOTAL	2.4	3.1	4.3	5.0
Share of total farm households in Thailand	49%	54%	76%	88%

Source: BAAC

The outreach to depositors is equally impressive. Although BAAC has no data on the actual number of depositors, the number of 7.6 million in 1998 savings accounts may provide sufficient proof. In addition, BAAC's market share in rural deposits (outside metropolitan Bangkok) has grown significantly in recent years to more than 14% (see Table 12). A decade ago, this share was still less than 3%[10].

Table 12: Market shares in rural deposits

	1994	1995	1996	1997
Commercial Banks	70%	68%	59%	57%
Gov. Savings Bank	18%	19%	25%	26%
BAAC	9%	11%	13%	14%
Gov. Housing Bank	2%	2%	3%	3%
Sub-Total	100%	100%	100%	100%

Outreach quality

The average loan size may serve as a first proxy for outreach quality. In 1998, the average loan size was Baht 81,696 (US$ 2,042). Taking the average per capita income of US$ in Thailand as a reference, the average loan size indicates BAAC's orientation to the low-income smallholder target group. This finding is confirmed when the size distribution of loans is taken into account. Around 98% of all loans and about 80% of the loan volume are in the micro and small categories while medium and large loans together account for 2% of the number and about 20% of the loan volume.

From 1995 onwards, the share of micro loans below Baht 60,000 has declined from 78% to 59% with a corresponding increase in small loans. To some extent, this development reflects a graduation of clients who require larger loans. To the other extent, this trend shows a supply-side reaction to the political interference in 1995 when BAAC was forced to reduce the lending rate for micro loans to below cost-covering levels. As a consequence, BAAC has -

[9] Not all of the registered clients are current borrowers. For example, in direct lending to farmer clients the number of actual borrowers has been relatively constant at 2.2 million or 65% of the registered clients over the past five years.

[10] GTZ (1999), p. 91

understandably - reduced its exposure in this category to less than 60% in numbers and to less than 20% in the loan amount.

Table 13: Size distribution of direct loans to farmer clients

	Loan size (Baht)	1995	1996	1997	1998
Number of loans					
Micro	below 60,000	78%	67%	62%	59%
Small	60,001 - 100,000	11%	18%	21%	22%
	100,001 - 500,000	10%	14%	16%	17%
Medium	500,001 - 1,000,000	0.8%	1.2%	1.3%	1.5%
Large	above 1,000,000	0.2%	0.4%	0.4%	0.5%
Loan Amount					
Micro	below 60,000	38%	26%	23%	19%
Small	60,001 - 100,000	13%	16%	17%	28%
	100,001 - 500,000	35%	38%	39%	34%
Medium	500,001 - 1,000,000	9%	11%	11%	10%
Large	above 1,000,000	7%	9%	10%	9%
Average loan size	Baht	50,293	62,104	66,513	81,696

Micro loans below Baht 60,000 are secured by joint liability, i.e. through co-signing of at least two members of the joint liability group. Micro loans do not require collateral. This policy enables poorer clients who do not posses adequate collateral to avail loans for agricultural production.

Furthermore, the regional distribution of BAAC's services serves as a clear indication of poverty outreach. The Northern and the Northeastern Region, Thailand's poorest regions, have benefited from a significant share of BAAC's credit services. 70% of BAAC's clients are located in these regions and receive about 60% of the credit supplied by BAAC.

5. Sources of funds: From dependence to self-reliance through savings mobilization

5.1 Restructuring in the sources of funds

One of the core elements of BAAC's reform process has been the fundamental restructuring in the sources of funds. The restructuring of the liability side progressed in stages over a period of 30 years and basically followed the phases outlined in chapter II above.

Table 14: Change in BAAC's sources of funds structure 1967 to 1999

	1967	1973	1980	1987	1993	1998	1999
Deposits from the public	11%	17%	12%	25%	48%	62%	65%
Mandatory deposits from CBs	--	--	39%	39%	7%	1%	--
Borrowings	19%	22%	35%	29%	32%	25%	22%
Shareholders' Equity	66%	57%	12%	6%	8%	7%	8%
Other liabilities	4%	4%	2%	1%	5%	5%	5%
Total	100%	100%	100%	100%	100%	100%	100%
Deposits to loans	14%	19%	21%	38%	66%	80%	81%

Source: BAAC

In the first phase (1966 - 1974), BAAC operated almost exclusively with government funds The major share (about 60%) came as equity contribution and some minor share (about 20%) in the form of a special credit facility on preferential terms from the BoT.

During the second phase (1975 - 1987), mandatory deposits from commercial banks became the major source of funds (about 40%), following the agricultural credit policy issued in 1975. At the same time, BAAC started borrowing from international finance agencies which made this source the second most important (about 30%) in the 1980s. Finally, deposit mobilization from the general public started to gain importance towards the end of the phase. In 1987, deposits mobilized by BAAC already accounted for one fourth of BAAC's funds. The build-up of liabilities (deposits and borrowings) significantly raised the financial leverage as the equity ratio came down from almost 60% in the beginning to 6% at the end of the phase.

The third phase (1988 - 1996) brought another major change in the funding structure. During the period, BAAC made deposit mobilization a core activity of its banking operations and as a result, deposits mainly from the rural areas have evolved into the single most important source of funds (more than 60%). Due to the liberalization of the agricultural credit policy, the commercial banks drew down their mandatory deposits with BAAC to an insignificant volume which provided a major impetus to BAAC's mobilization efforts. While borrowings have remained the second major source (about 25%), the composition has changed. BAAC had suffered considerable losses from exchange rate fluctuations associated with foreign loans and, thus, has taken a more cautious stance towards borrowings from abroad.

In 1991, BAAC started to issue bonds in the local capital market. The placement was successful and further issues followed annually. Today, local-currency bonds account for roughly half of BAAC's borrowings, soft loans from international finance agencies between 25% and 30% and the remaining balance of 20% comprises borrowing from domestic banks including the BoT (see Table 15 below). Government funds have been reduced to an insignificant share. Only in 1997 when Thailand was hit by the severe financial crisis, BAAC had to resort to the Ministry of Finance for liquidity credit which was converted into equity in the following year. In 1998, the bulk of overseas loans originated from OECF Japan (67%) and the Asian Development Bank (23%) while the balance (10%) was shared by a number of finance agencies including IFAD.

Table 15: Composition of borrowings by source

Baht million	1994	1995	1996	1997	1998
1. Overseas loans					
• OECF Japan	7,562	8,337	11,212	12,541	15,627
• World Bank	2.000	1,805	1,450	1,724	1,377
• Asian Development Bank	48	41	969	4,329	5,490
• KfW Germany	441	426	388	530	515
• IFAD	177	329	271	327	257
• USAID	150	145	75	107	98
• FMO Netherlands	93	78	71	57	43
• Meiji Mutual Life Insurance Company	--	--	1,052	1,486	--
Sub-total	10.471	11.161	15.488	21.101	23.407
2. BAAC Bonds	20,000	23,000	26,000	29,000	29,000
3. Local Banks	2,500	3,759	7,498	15,648	10,600
4. Bank of Thailand	4,650	4,125	3,500	4,000	4,000
3. Government	147	140	189	9.807	150
T O T A L	37,768	42,185	52,675	79,555	67,157
T O T A L (% of total assets)	28.6%	25.9%	25.5%	33.8%	25.3%

Source: BAAC

Over the past ten years, BAAC has increasingly become financially self-reliant and was able to significantly reduce its dependence on government funds, mandatory deposits from the commercial banks and loans from domestic and foreign sources. Within only a decade, the deposit to loan ratio more than doubled to 83%.

5.2 Asset and liability management

BAAC's liquidity situation has been maintained at comfortable levels since the bank gained access to deposits and foreign loans after 1975. BAAC has traditionally acquired more liabilities, i.e. deposits and borrowings, than were required to refinance its loan portfolio. The excess funds were invested in the local money and capital markets. These financial investments have generated additional interest income which has been used to boost its profitability and/or to compensate for losses from its lending operations. From 1986 to 1991, the proportion of excess funds was in the range of 22% to 30% (see Table 16) and came down to below 10% in the following years. With the significant inflow of deposits from private investors resorting to BAAC as a safe haven in the wake of the financial crisis, BAAC has been awash with liquidity in the past two years.

Table 16: Matching of assets and liabilities

Year	Interest-bearing liabilities (deposits+borrowings) (1)	Loans outstanding (net) (2)	Excess funds (1 ./. 2)	Excess funds as % of (1)
1986	32.4	24.3	8.1	25%
1987	32.5	23.4	9.1	28%
1988	35.9	25.3	10.6	30%
1989	43.0	31.1	11.9	28%
1990	59.2	39.1	11.0	22%
1991	65.5	51.0	14.5	22%
1992	75.3	69.9	5.4	7%
1993	94.4	79.6	14.8	16%
1994	114.2	102.4	11.8	10%
1995	140.6	134.5	6.1	4%
1996	183.0	172.0	11.0	6%
1997	215.4	185.8	29.6	14%
1998	234.2	198.4	35.8	15%

BAAC has maintained a relatively balanced term structure of assets and liabilities. For refinancing its long-term loans to clients, the bank has resorted to long-term borrowing from foreign sources which has helped BAAC to expand the proportion of investment loans since the early 1980s. Medium-term loans are mainly funded by domestic borrowing and bonds while customer deposits - the bulk of which are withdrawable at any time - are to a large extent employed in seasonal lending. As the term structure in Table 17 illustrates, deposits are also used to compensate for the mismatch in the long- and medium-term positions. This clearly indicates that BAAC increasingly performs as a financial intermediary by conducting term transformation to a considerable extent and, thus, improving financial intermediation efficiency.

Table 17: Term structure of assets and liabilities 1998 (billion Baht)

	Net Loans	Liabilities	Deficit/surplus
short-term	86	167	+ 81
Medium-term	59	37	- 22
long-term	53	30	- 23
Total	198	234	+ 36

Source: own calculations and estimates on the basis of BAAC data

6. Financial performance: From subsidy dependence to increasing financial self-sustainability

6.1 Capital adequacy

The ratio of capital to loan portfolio was high during the initial phase of BAAC's operations because equity contributions from the government constituted the major source of funds at that time. With the diversification of funds, the ratio gradually declined from 75% in 1967 to less than 10% in the late 1990s. During the phase of rapid expansion from 1988 until 1995, BAAC maintained its capital endowment at between 10% and 13% of loans outstanding, a level considered acceptable for a sound rural financial institution.

Table 18: Capital base

	1967	1970	1975	1980	1985	1990	1995	1997	1999
Shareholder capital as % of net loans	75.6%	60.9%	34.8%	19.2%	13.3%	12.9%	8.2%	3.6%	9.1%

Since 1995, the ratio has dropped below 10%. The most serious decline occurred in the context of the financial crisis in 1997. BAAC experienced a considerable loss of Baht 5.6 million (equivalent to US$ 223 million at pre-crisis exchange rate) due to the devaluation of the Thai currency. The bulk of its foreign debt was unhedged at the time. The deferred loss effectively wiped out almost half of BAAC's equity. In 1998, the government replenished BAAC's capital to an adequate level.

6.2 Portfolio quality and loan loss provisions

Portfolio quality was low in the mid-1980s but has improved considerably since then.[11] BAAC has maintained an adequate reserve for doubtful and bad loans in accordance with loan portfolio quality (see Table 19). With improving portfolio quality, the reserve declined from more than 7% of gross loans outstanding in the late 1980s to less than 3% in the mid-1990s. In most years, BAAC maintained the reserve at roughly twice the level of arrears of more than one year. Over the past three years, the ratio of reserves to arrears has declined and for 1998 an 1999 the reserves appear to be inadequate against the dramatic increase in arrears.

Table 19: Reserve for bad debt

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
billion Baht:											
Gross loans outstanding	33.6	41.9	54.0	73.2	83.3	106.2	138.2	177.1	193.5	209.4	228.5
./. Reserve for bad debt	2.5	2.8	3.0	3.3	3.7	3.8	3.6	5.1	7.7	11.0	15.1
Net loans outstanding	31.1	39.1	51.0	69.9	79.6	102.4	134.5	172.0	185.8	198.4	213.4
% of loans outstanding:											
Reserve for bad debt	7.4%	6.7%	5.5%	4.5%	4.5%	3.5%	2.6%	2.9%	4.0%	5.2%	6.6%
Arrears of more than 1 year (Individual client farmers)	5.0%	3.6%	2.3%	2.1%	2.0%	1.8%	1.7%	2.9%	3.8%	6.6%	9.4%

Source: BAAC. Annual Reports.

In the past, annual provisions were made on the basis of past due principal according to age. New provisioning rules are currently worked out by BAAC and the BoT which will be based on portfolio at risk and brought in line with prudential standards applied the commercial banks. This measure alone is likely to require a considerable increase in provisions in the near future let alone the further deterioration of the loan portfolio.

6.3 Profitability

[11] On recovery performance see section 4.1

BAAC has generated positive returns of assets and equity in all of its 33 years of operations. However, since 1975, the level of profitability has been low with a return on assets (ROA) of less than 1%. In the first phase, profitability was much higher because BAAC was provided with cheap and costless funds by the government. A sharp decrease in profitability occurred from 1975 to 1977 because of the higher financial costs of mandatory deposits from the commercial banks. Lending rates, on the other hand, were kept low due to political pressure. A reduction in operational costs and access to soft loans from foreign sources led to an improvement in profitability.

The official and certified financial statements published in the annual reports do not fully reflect the true picture. Firstly, the annual bonus for directors and employees are presented erroneously as appropriation of profit and not as an expense in compliance with international accounting standards. Secondly, the financial statements - though being valid for BAAC as an entity - do not show the profitability of BAAC's main activity, i.e. lending, but they are masked by a considerable degree of cross-subsidization by interest income from investments in government bonds. Therefore, adjustments have been made accordingly in the profit and loss data presented in Table 20 below for the past ten years.

Table 20: Development of profit and loss 1989 to 1999
(% of average gross loans outstanding)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
1. Income from lending	12.6%	13.1%	13.2%	12.0%	12.6%	11.0%	11.6%	11.2%	12.1%	12.3%	10.4%
2. Cost of (loanable) funds	7.5%	9.0%	8.6%	7.1%	6.9%	6.5%	7.7%	7.0%	7.3%	7.1%	5.2%
3. Spread (1./.2)	5.1%	4.1%	4.6%	4.8%	5.8%	4.4%	3.9%	4.2%	4.8%	5.2%	5.2%
4a. Personnel (incl. bonus)	3.0%	3.1%	2.8%	2.8%	2.7%	2.6%	2.6%	2.2%	2.3%	2.1%	1.9%
4b. Office cost	1.2%	1.1%	1.2%	1.0%	1.7%	1.4%	1.2%	1.1%	1.0%	1.0%	0.9%
4c. Loan loss provisions	0.9%	0.9%	0.4%	0.7%	0.6%	0.0%	0.4%	1.0%	1.5%	2.4%	2.6%
4. Total operational cost	5.1%	5.0%	4.4%	4.5%	5.0%	4.1%	4.2%	4.4%	4.8%	5.4%	5.4%
5. Net income from lending (3./.4)	-0.1%	-0.9%	0.2%	0.3%	0.8%	0.3%	-0.3%	-0.1%	0.0%	-0.2%	-0.2%
6. Net income from investments	1.0%	1.6%	0.3%	0.4%	0.0%	0.5%	0.6%	0.6%	0.2%	0.2%	0.2%
7. Profit (5+6)	0.9%	0.7%	0.6%	0.8%	0.8%	0.8%	0.3%	0.4%	0.2%	0.0%	0.0%
<u>Profitability ratios</u>:											
Return of Assets (ROA)	0.6%	0.5%	0.4%	0.6%	0.6%	0.7%	0.3%	0.4%	0.2%	0.0%	0.0%
Return on Equity (ROE)	7.5%	5.6%	5.0%	8.0%	8.3%	8.7%	3.9%	5.6%	4.3%	0.2%	0.2%
<u>Sustainability ratios:</u>											
Operation. Self-sufficiency	245%	260%	302%	266%	255%	267%	279%	256%	254%	226%	
Financial self-sufficiency	99%	94%	102%	103%	107%	103%	98%	99%	100%	98%	

<u>Source:</u> BAAC annual reports; own calculations and adjustments

The adjusted income statements alter the picture somewhat. It shows that BAAC suffered a loss on its lending operations in five out of ten years. Net income from lending (line 5) declined dramatically in 1990 due to an increase in the cost of funds following the liberalization and rise of deposit rates in 1989. On the other hand, BAAC benefited from higher interest rates and compensated the loss from lending with profits from its investments. With cost of funds retreating to normal levels, BAAC returned to profitability in lending operations from 1991 to 1995. However, since 1996 profitability deteriorated. On the one hand, this was a result of the intervention by the government which forced BAAC to reduce the lending rate on micro loans to 9%. On the other hand, the bank faced a decline in loan recovery and higher provisions for non-performing loans. The financial crisis which hit Thailand in 1997 led to a further erosion in loan portfolio quality in the past two years.

Throughout the years, BAAC was able to cross-subsidize its lending business with interest income from investments (line 6) and maintain its overall profitability. However, with increased market integration on the funding side (deposits) the margin has narrowed considerably over the last four years. In 1998, BAAC as a whole was barely able to break-even. Amid the excess liquidity in the banking system and the low yields on its investments, BAAC cannot count on cross-subsidies anymore but must rather address the root causes undermining the profitability of its lending operations.

BAAC's operational costs (line 4) have moved in a narrow range between 4% and 5%. This span appears relatively efficient given the nature of BAAC's operations with millions of small loans and deposits which inherently have high administration costs. Cost control and reduction have always been a priority concern for BAAC's management. Over the past decade, staff expenses were reduced from 3.1% to 1.9% indicating significant gains in productivity (see section 6.4 below). Office cost was brought down to 1% of average loans outstanding. The decline in these cost aggregates is mirrored, however, by a deterioration of recovery performance and a resulting increase in loan loss provisions to the highest level in BAAC's history. In 1999, loan loss provisions accounted for 2.6% of average loans outstanding, more than the total staff expenses in the same year. Provisions for loan losses are likely to increase significantly as BAAC is required to apply more stringent provisioning rules set by the Bank of Thailand.

Besides the current recovery problem, the root cause for BAAC's precarious financial situation is rather to be sought in the political restriction on its lending rates. The cap on lending rates leaves BAAC with a narrow spread of 4% to 5% which has been more or less sufficient for the bank to cover the costs. On the one hand, this policy has in principle ensured the viability of BAAC's operations. On the other hand, it has prevented BAAC from strengthening its capital base through retained earnings and from providing its shareholders with attractive dividends. The latter is of particular importance in the light of BAAC's privatization plans. The return on equity (ROE) has been low and in some years even below the rate of inflation.

Furthermore, BAAC has benefited from various types of hidden incentives and indirect subsidies which have not been accounted for in the calculation presented above, such as exemption from minimum reserve requirements and income tax, costless equity from the government and preferential interest on BoT borrowings. Attempts have been made by the World Bank to quantify the **subsidy dependence** of BAAC by incorporating the various subsidy elements in the calculation of the so-called subsidy dependence index[12]. The computation revealed no clear declining trend in BAAC's subsidy dependence during the period from 1987 to 1995 but showed a positive correlation of subsidy dependence and inflation. A plausible explanation for this trend is that BAAC has had to pay competitive rates on deposits when inflation has risen, but it has been unable to adjust its lending rates sufficiently upwards due to political pressure. In contrast, declining inflation rates have improved BAAC's operating margins and consequently enabled it to cover a larger share of its costs and lower its dependence on subsidies. In 1995, for example, BAAC could have eliminated subsidies by an increase in the average lending rate by 3.9 percentage points.[13]

[12] Assessing Development Finance Institutions - A Public Interest Analysis. By Jacob Yaron, World Bank Discussion Paper 174 (1992)

[13] Over the past decade, BAAC's subsidy dependence index oscillated within a modest range of 10 to 55 percent, in 1995it was 35.4%. See SBP (1998), pp. 25-26

The challenge for BAAC is to convince the government that serving millions of small customers in rural areas is a costly business, unlike commercial banking in primarily urban areas which policy-makers as a reference. The scale and scope of BAAC operations therefore require a realistic pricing of loans. In July 1999, the BAAC Board approved an important step towards reforming the bank's interest rate policy. The progressive interest rate structure (see Table 5) and the inherent cross-subsidies were abolished and replaced by a unanimous base rate of 12.5% irrespective of the loan size. Furthermore, the interest rate is linked to performance, i.e. preferential rates may be applied for borrowers with good performance and track record (prime customers). Being a step in the right direction, the incentive effects on the recovery performance and the overall impact on the profitability are yet to be seen.

6.4 Efficiency and productivity

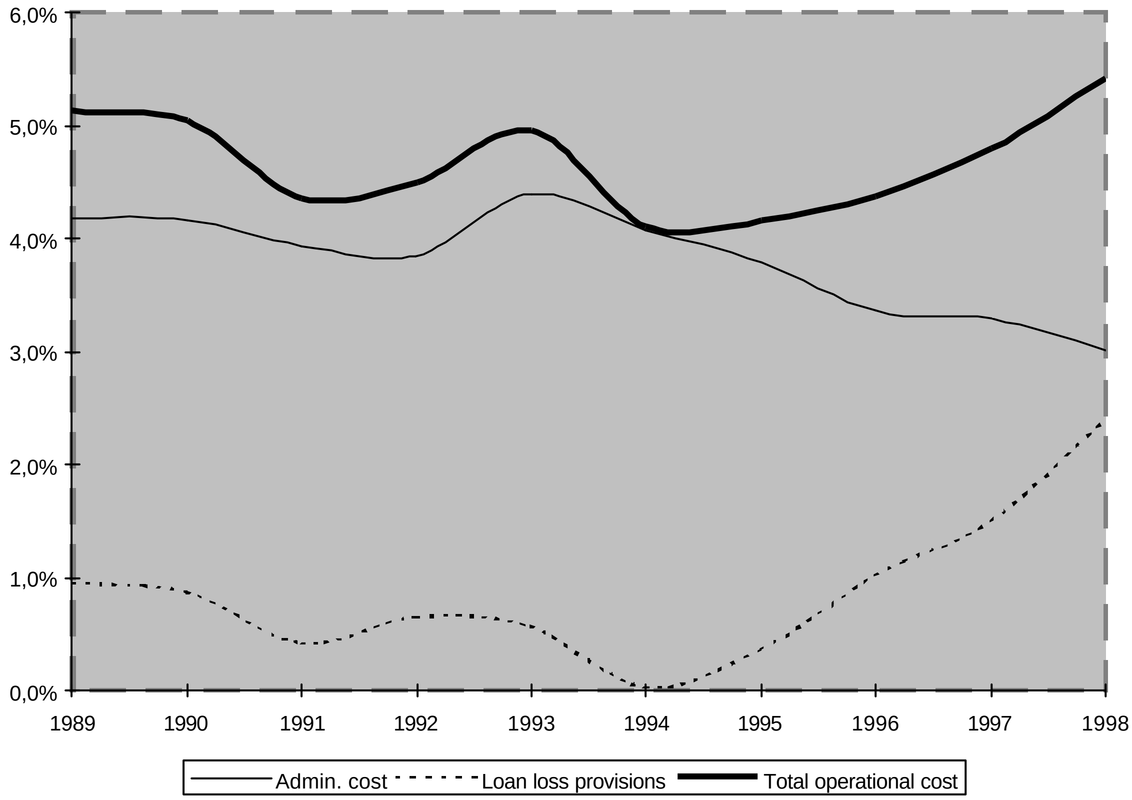
The successive increases in efficiency and productivity have been key factors for BAAC's survival and (constrained) profitability in the past. The increase of staff has closely followed the growth in output, especially with number of client farmers registered.

The productivity of the credit officers has increased successively over the years. Today, one credit officer is responsible for 500 to 550 client farmers, a number which appears high in comparison with similar financial institutions elsewhere. However, only about 70% of registered clients are current borrowers so that a credit officer handles about 400 loans. Furthermore, individual client farmers are organized in joint liability groups with an average of 15 members. As the credit officer primarily deals with the group leader, the credit officer can utilize economies of scale and scope as the number of contact persons comes down to about 30. The average loan portfolio per credit officer has increased an even faster rate. Over the past eight years alone, it more than tripled in nominal terms from Baht 10 million to Baht 34 million.

Similar productivity increases have taken place in the front- and back-office of the branches. With the rapid expansion of savings mobilization, the number of deposit accounts per branch employee (excluding credit officers) increased from 836 in 1995 to 1,420 in 1998. Overall, BAAC has been remarkably successful in raising staff productivity over the years, at least in terms of quantity. Whether the quality of output could simultaneously be sustained or even improved is to be questioned, especially in the light of the deterioration in portfolio quality.

Efficiency increases and cost reductions have been the major guiding principles over the past years. The continuous decline in administrative cost - combining both staff and office cost - since 1993 is clearly visible in Figure 1 below. Simultaneously, however, the cost of risk in the form of provisions for loan losses increased at an even faster rate. The opposing trends point at a **trade-off** between administrative costs and costs of risk: the lower the investment in terms of staff and office support for screening, monitoring and follow-up of borrowers, the higher are the potential loan losses and the costs associated in the form of loan loss provisions. The combination of both cost aggregates is optimal when the total operational costs - i.e. the sum of both - are minimized. It appears that BAAC experienced such kind of equilibrium from 1989 to 1993 when administrative costs were relatively constant at around 4% and loan bss provisions between 0.5% and 1%. The trend since 1994 indicates that raising efficiency and productivity beyond this optimum may have been counter-productive as risk-related costs have increased to a similar extent. The result has been that overall operating costs have risen to 5.4% of average loans outstanding, the highest level BAAC has experienced in more than ten years.

Figure 1: Trend of operational costs and its components



Source: Table 20

IV. CONCLUSIONS AND LESSONS LEARNED

1. General conclusions

In BAAC, the reform process as such has been a gradual one and has progressed in stages over more than 30 years, different from the „big-bang“ type of reform experienced in other agricultural banks, for example BRI in 1983. At times, the reform process in BAAC moved slowly, and gained momentum in other periods.

The implementation of reform steps has resulted from both external and internal factors. In many cases, reform decisions and measures were taken in response to external influences such as government policy decisions and external shocks like the financial crisis most recently. However, a number of important reform steps originated from inside, some in adaptation or anticipation of a changing environment, others in response to lessons learned including both failures and best practices. The shift from wholesale to retail lending in the late 1970s and the aggressive expansion of the branch network since the late 1980s are examples in point.

The development of BAAC and the inherent reform process have been guided by a clear vision of achieving the dual objectives of (a) maximum outreach to the target clientele of farm households and (b) maintaining the financial viability of the bank. Political pressure and the strong role of the government has been the major force behind the outreach objective while the financial viability has been of vital interest to BAAC’s management. Striking a balance between the two potentially conflicting objectives has not been an easy task and involved compromises and compensations on either side.

In terms of focus and content, the reform process has been directed at the transition from agricultural credit to rural finance and at the institutional transformation of BAAC from a specialized credit institution to a diversified rural bank. The gradual diversification of financial services provides a clear indication of this evolution. In the early years, BAAC mainly provided short-term agricultural loans. During the 1980s, the bank expanded into medium- and long-term farm lending. Since 1993, BAAC has offered loans for farm-related activities and most recently opened the window for non-farm lending to rural micro and small enterprises. Since the mid-1980s, BAAC has added savings deposit facilities to the range of financial services offered to its rural clients.

The progress of BAAC has been achieved under a financial sector policy framework which is commonly being criticized as „repressive“ with features such as fixed ceilings on lending rates, directed credit, mandated lending to agriculture etc. The agricultural credit policy in the 1970s and 1980s, and especially the mandatory deposits supplied from the credit quota policy, allowed BAAC to expand. Moreover, the availability of these deposits introduced BAAC to a more commercially-oriented cost structure which, in turn, forced the issue of cost-efficiency on the management and staff. This first step into the market prepared BAAC for the mobilization of its own deposits at a later stage.

2. Major reform elements

The reform of BAAC was characterized by a number of specific elements which can be summarized as follows:

First, the operational autonomy of the bank has been safeguarded and respected by the government. Directives and interventions by the government mainly applied to the policy level.

Second, BAAC has developed a corporate culture that recognizes cost-effectiveness, productivity and efficiency as major guiding principles, despite government ownership and BAAC's status as a state-owned enterprise. This was largely achieved by the „privatization“ of the organization and the internal procedures, such as the delegation of authority and responsibility to managers at different levels, the organization of the branches as profit centers and the recruitment of staff carefully tuned to workload, to name a few examples.

Third, the expansion of the branch network and the decentralization of operations which greatly increased the physical proximity and convenience and reduced the transaction costs for its clients. This was particularly important for savings mobilization as the number and volume of deposits grew proportionately with the number of outlets.

Fourth, BAAC developed and perfected a particular financial technology and delivery mechanism, i.e. individual lending to members of joint liability groups, which specifically suits the rural Thai context. At the same time, BAAC reduced its engagement in the field which was less successful, i.e. wholesale lending to agricultural cooperatives.

Sixth, BAAC actively engaged in rural savings mobilization which led to a radical change in the financial resource base. Savings mobilization became a realistic option after two pre-requisites were fulfilled: first, the loan portfolio quality significantly improved in the early 1990s which sent an important signal to depositors concerning the safety of their deposits, and second, the expansion of the branch network reduced the depositors' transaction costs which allowed low-income clients to deposit small amounts in a savings account with BAAC.

Seventh, in view of the political constraints in its lending policy, BAAC's management has successfully pursued a strategy of negotiating privileges and compensations against government interventions and restrictions. While such compromises represent second-best solutions from a strictly economic viewpoint, BAAC was able to protect its financial viability in a politically constrained environment.

3. The reform agenda ahead

Despite the achievements and progress so far, some issues remain to be addressed in the future.

First, BAAC's ownership and governance structure does not reflect the composition of stakeholders which has radically changed over the past years. Today, more than one half of BAAC's financial resource base originates from private individual depositors who have emerged as the major stakeholders. They need to be reassured and protected with respect to the safety of the financial resources they have entrusted to BAAC. The recent shift of BAAC from government control to regulation and supervision by the BoT has been a first step in this direction. Moreover, the diversification of stakeholders should therefore be adequately reflected by moving to private ownership of BAAC stock and by representation of the stakeholders interests on the BAAC Board.

Second, lending rates should be re-aligned to reflect the true cost. The policy makers should be convinced that a spread of 4% to 5% is insufficient given the nature of BAAC's operations, i.e. mobilizing small savings and providing small and micro loans. Commercial banks with their higher deposit and loan sizes do not represent an appropriate reference for setting lending rates. Moreover, BAAC has raised efficiency and productivity to maximum levels and there are indications that further increases would be counterproductive in terms of loan and service quality.

Third, BAAC's management information system (MIS) has not followed suit with the rapid development and the fundamental changes that occurred in recent years. BAAC has already decided to revamp the entire system and to design and install a new system from scratch. BAAC urgently needs to set up an integrated customer information system which allows field-level managers to track the performance of both savings and loans of a particular client. Furthermore, the bank should define a transparent set of performance indicators and standards as key management information base in order to rationalize the present system of reporting with numerous overlapping and duplications.

Fourth, BAAC should consider introducing performance-based incentives and remuneration, a feature largely non-existent to date. The annual bonus taken from the bank's profit does not fulfill this function as all employees receive the same bonus in proportion to their monthly salaries. However, the Board has authorized the management to pilot-test a performance-based incentive scheme and has allocated a limited amount for this purpose in the current FY 1999.

4. The role of donors and development cooperation

BAAC has a long history of cooperation with international donor and finance agencies, both financial and technical cooperation.

Since BAAC started to access funds from international finance agencies in the mid-1970s, foreign loans have become an important source of loanable funds. However, the experience with borrowing abroad has been mixed. On the one hand, the access to long-term funds allowed the bank to diversify its term structure on the assets side and expand medium- and long-term lending for investment. On the other hand, BAAC was required to assume the foreign exchange risk on most of the loans and, as a consequence, suffered considerable losses due to exchange rate fluctuations. The losses were particularly severe in the wake of the recent financial crisis and the devaluation of the Thai currency when half of the bank's equity was wiped out. Over the past decade, BAAC has been more careful and selective with respect to foreign borrowings and has recently adopted a policy that foreign loans should not exceed 15% of total assets.

Similarly, BAAC has been a recipient of technical assistance in different fields and from various sources. The bank has certainly gained from the inputs and advice provided by different experts but also from learning from the experience of similar institutions in neighboring countries. Presently, BAAC has an ongoing cooperation with GTZ of Germany in the context of the aforementioned micro-finance linkage project. The project serves as a laboratory for developing and testing innovative features, products and approaches in selected branches which - if successful - are being replicated on a national scale. So far, the project has developed an innovative savings product addressed to low-income clients, a training method and program to improve the service culture of BAAC branches as well as the system and instruments for non-farm lending to microenterprises

A valuable contribution from international agencies has been provided in the field of political advocacy and policy dialogue with government agencies. Institutions like the World Bank, the Asian Development Bank but also recognized local institutions like the Thai Development Research Institute (TDRI) engaged in research, studies and seminars to support BAAC in its struggle for independence and financial self-sustainability. More efforts in this direction are needed to remove the remaining barriers on BAAC's path to becoming a fully autonomous and sound rural financial institution.

Bibliography

BAAC. Annual Report. Various issues.

Fitchett, D. (1997): Agricultural Finance Revisited: Case Study of the Bank for Agriculture and Agricultural Cooperatives. Draft prepared for GTZ, Germany

Fitchett, D. (1998): Bank for Agriculture and Agricultural Cooperatives (BAAC), Thailand (Case Study). In: Hannig/Wisniwski (eds.): Challenges of Microsavings Mobilization - Concepts and Views from the Field. GTZ and CGAP Working Group on Savings Mobilization.

Maurer, K. (1997): Assessment of Linkage Banking Projects in Asia. Case Study 3: BAAC/GTZ Project Thailand. APRACA. Draft report.

Maurer, K. (1998): Savings Mobilization in the BAAC: Analysis of past trends, assessment of performance and recommendations for the future. BAAC/GTZ Micro-finance Linkage Project.

Maurer, K. (1999): Non-farm Lending in Kalasin and Surin. Internal Evaluation Report. BAAC/GTZ Micro-finance Linkage Project.

Muraki, T.; Webster, L.; Yaron, J. (1998): BAAC - The Thai Bank for Agriculture and Agricultural Cooperatives. Case Studies in Microfinance. Sustainable Banking with the Poor. World Bank.

Sacay, O.; Randhawa, B.; Agabin, M. (1996): The BAAC Success Story: A Specialized Agriculture Bank Under Government Ownership. World Bank. Draft.

Seibel, H.D.: Agricultural Development Bank Reform. IFAD Rural Finance Working Paper A7

Seibel, H. D.: Agricultural Development Banks: Close Them or Reform Them? International Monetary Fund, *Finance & Development*, June 2000, pages 45-48

Thailand Development Research Institute Foundation (TDRI) (1998): The Rural Finance in Thailand 1996.

Yaron, J. (1992a): Successful rural finance institutions. World Bank Discussion Paper No. 150.

Yaron, J. (1992a): Assessing Development Finance Institutions: A Public Interest Analysis. World Bank Discussion Paper No. 174.