EVALUATING THE PERFORMANCE OF STATE INVOLVEMENT IN CREDIT PROVISION: THE CASE OF FARM CREDIT PROGRAM IN INDONESIA

Muyanja Ssenyonga[1]

Intisari

Artikel ini mengevaluasi kontribusi program kredit pertanian di Indonesia. Kontribusi positif program kredit pertanian antara lain dapat dilihat dari peningkatan hasil pertanian yang disebabkan naiknya produktivitas, penggunaan mesin, pembangunan sarana dan prasarana, dan penggunaan biji-biji varietas unggul. Namun demikian, program kredit pertanian masih dibayangi biaya besar yang harus ditanggung pemerintah, yang pada prinsipnya disebabkan tingkat tunggakan yang tinggi. Selain itu untuk mewujudkan program tersebut pemerintah telah melakukan distorsi pasar kredit yang akibatnya memperlambat kemajuan jasa sektor finansial di Indonesia. Kelemahan program kredit tidak terletak semata-mata pada konsep dan landasannya, melainkan kekurangan dalam perencanaan dan saluran kredit program yang dipergunakan. Perbaikan jasa penyuluhan lapangan adalah keharusan yang mesti dilakukan, yang meliputi rancangan program kredit, cakupan, penyaluran, pengawasan, penyebaran informasi, serta cara dan ketepatan sistem penagihan .

***Kata kunci**: kredit program, penunggakan, jasa penyuluhan, penyalahgunaan kredit*

Introduction

The role played by direct government programs in fostering change in farming practices by farmers, from traditional to better ones suited to High yielding varieties HYVs output is no longer debatable. Commenced in the late 1950s, targeted credit programs under various names have made headway in agricultural development, hence have been a vital element in extricating millions of people from the shackles of abject poverty. It is through the provision of targeted credit that farmers were

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able to secure good quality seeds, fertilizers, fungicides, working capital, as well as irrigation and infrastructure construction and maintenance (Soeharjo 1976; Mears, 1981; Greville, 1981; Timmer, 1975). More employment opportunities have been generated, higher incomes been realized which has led to higher demand for all types of goods, consumer and producers' alike. The use of better inputs induced increases in land productivity which increased demand for labor, better resource mixes made possible, and more investment in land.

There is no doubt that thanks to the rice intensification programs, the level of personal savings increased, which funds were then available for investment in other sectors of the economy. Thus, it could be argued that direct government intervention in credit provision by easing the credit constraint facing small farmers, opened new frontiers by making it possible for higher consumer surplus, which was saved to become the source for investment in other sectors of the economy. The reduction of the credit constraint, which had been a key obstacle unleashed the potential for higher factor productivity (Hayami and Ruttan, 1985; Pingali, 1997). The consequence was increased volumes of output. With higher agricultural output farmers' incomes soared, enabling them to hire more labor, undertaking more investment in farm buildings, acquisition of agricultural machinery, and livestock. The food security problem in Indonesia, for example, was overcome despite temporarily, in 1984 when Indonesia achieved food self-reliance, albeit temporarily as it turned out (Tambunan, 1998). Yet, despite so much headway on many fronts, program credit has had its drawbacks, which show signs of rising in line with the size and degree of dysfunction of such programs. Antagonists of directed credit programs mention among factors, huge resources misallocations, high default rates on credit programs, inefficiency of the government bureaucrats, lower than expected increases in productivity contrary to expectations, the irrelevance of such programs in times of economic liberalization and global markets, as drawbacks of such programs. Realizing the difficulty of sustaining the gamut of credit programs in place in the long term, the government embarked on a redress of the situation by allowing the increased role of the market as early as the late 1970s. Such policies were tailored toward stimulating the development of the financial sector, which would thereby remove the necessity for any further state

intervention in the workings of the market to secure credit to priority sectors.

Such policies encompassed the liberalization of the financial sector, which begun with the 1978 devaluation, followed by successive deregulation policies in 1983, 1988 and 1990, 1992, and 1998, and 1999. Such financial sector reforms cleared most hurdles that obstructed competitive operations in the sector Marshall (1994). Interest rate on loans non-priority loans and deposits became the responsibility of the respective financial institutions, which immensely leveled the playing field; the scrapping of 32 out 36 priority programs in 1990 meant that the degree to which financial institutions were obliged to have assets on their portfolios that were not of their liking, was considerably reduced. Nonetheless, such liberalization measures have been undermined by the increasing resurgence of the dominance of state-owned banks in the credit market, which in effect reduces the impact of the reforms. It is even true to say in some cases that the scrapping of old measures led to the re-incarnation of new but more subtle ones. This is evidenced by the imposition on national commercial banks to extend a minimum of 20 per cent of their loans to small and medium sized firms, while for foreign banks were obliged to extend 50 per cent of any increase in their loan portfolios to export activities. Thus, government meddling in the credit market continued beyond interest rate deregulation of the early and late 1980s, though on a reduced scale.

Paradoxically such reforms that were lauded as monumental for the development of the financial sector increased the importance of state involvement in ensuring the provision of credit to sectors, which are customarily considered risky. The necessity of such credit has been vindicated by the relative resilience of the agricultural sector during and in the wake of the 1997 economic crisis, as compared to other sectors. While other sectors contracted, the agricultural sector registered an increase in output paradoxically at the time when most forecasters were projecting immense declines (Tabor et al., 1998: 12). The foundation of the economy is being re-evaluated. Indeed as testified by Seibel (Seibel, 1999: 5; Seibel and Parhusip, 1998) a number of "small-scale entrepreneurs transferred their funds from other enterprises to those involved in agribusiness projects," as the prospects of the latter are better.

What is even more encouraging for those involved in agriculture is the fact that the performance of credit institutions that work outside commercial banking guidelines and principles far exceeded that of the latter by a large margin. This is very true for rural financial institutions that do not rely so heavily on borrowings and capital from external sources (Reille and Gallman, 1998). This is evidenced by the better performance of BRI units, which registered an excess of liquidity to the tune of Rp.10 trillion which contrasted is with the disastrous performance of KUT, KKUD, KKPA programs with 31 per cent, 18 per cent, and 13 per cent in arrears respectively, by July 1998 based on Seibel (Seibel and Parhusip, 1998: 4). Nonetheless, credit disbursement to agriculture, though showed signs of increasing in the short-term in the immediate aftermath of the 1997 economic crisis, seems to return to former patterns and trends in favor of trade and industry. It is such bones of contention that this article attempts to answer and perhaps much more. This article thus, evaluates the performance of program credit in Indonesia, with particular emphasis on farm credit, the inroads accomplished, the challenges that still hamper its effectiveness, and future prospects. The study is presented in seven sections. The second section explores the necessity for government intervention in credit disbursement; the third section evaluates the impact of agricultural extension service provision on directed credit programs in Indonesia; section four considers the impact of poverty incidence on credit program performance. Section five looks at the achievements and failures of directed credit programs in Indonesia, while section six considers the prospects of credit programs in Indonesia. Section seven concludes the article.

The Rationale for Government Intervention in Credit Markets in the Third World

Decried though it may be, government intervention in the economy is regarded by some as the provider of the missing link, without which economic development cannot take place. Diakosavvas (1997) hails the importance of government involvement in the economy, suggesting that putting prices right isn't enough to stimulate growth. It should be in simultaneity with non-price measures such as irrigation provision, infrastructure, and extension service. The instability of government

expenditure adversely affects investment and quality of planning with adverse effects on output growth and development. On a similar note Stiglitz and Weiss (1993) regards selective credit policies as the mechanism that instills security, order, and continuity in the financial system that is fraught with imperfections and high information costs. Stiglitz and Weiss (1993) shows unequivocal support for selective credit policies, government intervention, and financial repression as long as the government implements them with its limitations in mind. In conditions where the collection, processing and dissemination of information for allocating funds and monitoring them is not optimal, due to market failures, the government has to intervene to reduce the high cost of externalities on the economy at large. In addition, the existence of the diversion of private interest from public interest means that for example the failure of one bank is interpreted by the public as a signal that other banks are about to follow thus sparking off bank runs that may lead to the total collapse of the entire banking system.

Thus, the government intervenes as the guarantor of savers' deposits in banks, which reduces the probability of bank runs happening. High cost of monitoring activities means that there is unwillingness by individuals to invest in such activities because of the high probability of free-riding. Government intervention in such conditions improves welfare as it undertakes the provision of insurance, which reduces chances of diverse selection and moral hazard. It is to be expected that developing countries bedeviled by imperfect and incomplete financial markets need the services of the government not only as facilitators, but also as participants in determining and directing the supply and demand of the financial products.

Furthermore, government must ensure that financial institutions are run on sound and prudential principles, with guidelines on what businesses to engage in by banks and what not to, what capital should be maintained for any additional assets (loans) made, by carrying out regular supervision and monitoring their operations. This is to facilitate the carrying out of the intermediation role in accordance with the demands of the economy thereby serving as agents of development. Governments through the central bank or monetary authority insure the depositors' money in banks, which by so doing enhances the willingness of the public to save, thereby providing the source of credit. It isn't rare that such insurance of depositors'

money undertaken by governments encourages bankers to indulge in risky investments as the cost of failure is bound to be borne by deposit insurance agency rather than the bankers due to the moral hazard problem. It is the government again that sets down capital and other prudential requirements that are mandatory in line with the nature of risk inherent in their investments to overcome such a problem.

Stiglitz contends that the maintenance of some level of financial repression, which by implication presupposes state intervention, guarantees low interest credit to key sectors in the economy. He goes ahead by suggesting that financial repression would ensure higher firm equity as it lowers the cost of capital. After all, according to Stiglitz, low interest credit induces better quality investment, as it increases the pool of applicants. Governments by virtue of their vested powers can use incentives and restraints to reduce moral hazard by forcing banks to participate in consumer's deposits insurance (use of account No.501 in Indonesia), increase capital adequacy requirements, collateral requirements, provision of constant supervision, and ensuring prudential behavior. The government can also encourage lending to sectors with high technological spillovers, which should boost economic growth. State intervention is deemed necessary in developing countries, according to Stiglitz (Lapavitsas, 1997) to promote the generation of savings; improve the operation markets through regulation; creation of markets where these are nonexistent; directing investment to enhance growth and stability by limit rent-seeking activities, and providing conducive atmosphere for private investment by ensuring political stability. Additionally, governments improve the performance of markets and institutions as well as equalize private and social return by intervening in developing economies' financial sectors through facilitating access to cheap credit to weak but primary sectors such as agriculture. Governments played a key role in the development of development banks and financial markets to fill credit gaps. Such mechanisms along with the creation of government bond markets provided funds for long-term investment and led to an increase in commercial lending, which stimulated growth and development.

Bencivenga and Smith (1991) contend that in most developing countries owing to the existence of small, spatially distributed narrow taxable units reduces the benefits of direct taxation and indirect taxation (because of

low purchases), therefore necessitates some degree of financial repression to ensure the realization of fiscal targets which can not be otherwise attained. Such a view is shared by Petersen and Rajan (1995) who argue for a concentrated market as necessary for credit provision to small fragile developing economies. Developing countries are characterized by thin financial markets with the result that only few players can profitably engage in credit provision, thus concentrated credit market is considered advantageous. It is in concentrated credit markets that banks can reduce costs and risks of operating small volumes of credit and deposits by going into long standing relationships with borrowers. By so doing, banks increase the certainty of internalizing better returns in the long run (Petersen and Rajan, 1995).

Moreover, high information asymmetry implies that were the activities of private lenders to be left unfettered, severe credit rationing could be the unavoidable. This is because the immense cost of transactions in imperfect credit markets implies that whichever means lenders use to differentiate potential borrowers, lenders still face a lot of uncertainty. This arises from among others, "*.. prevalence of strong non-price contract terms and existence of sufficiently strong adverse selection and adverse incentive effects in the wake of changing interest rates that makes it nonviable to allocate credit under such terms; the fact that the supply of funds equilibrium taking into account the use of non-price instruments yields lower expected returns to the lender than when credit rationing is employed."* In such a situation, banks may end up extending loans to borrowers with low return projects, leaving out those with high return projects (Stiglitz and Weiss, 1993: 186). Governments, having no vested interests may reduce such credit misallocation and deprivation.

Besides, governments by virtue of their enshrined obligations and responsibilities must be involved in financial institutions. It is thus an onus on the government to prevent the collapse of major financial institutions which, if allowed would have domino effects on the entire banking system. Through the provision of either overt or covert insurance or both, the government minimizes risk taking. In addition, government thanks to its position as executor of programs for the general good can force members of the insurance program, banks in this case to abide by its dictates. Moral hazard for example, can be reduced by compelling

more information disclosure as well as using a variety of instruments of control. The fact that governments aren't supposed to behave indiscriminately towards all agents in the economy makes their involvement as insurers more beneficial and invaluable to the economy.

The government is in addition Equipped with compulsion and proscription, which enables it to force financial institutions to adhere to its regulations; and able to use incentives and restraints designed to reduce the moral hazard problem by forcing increases in capital requirements. It is to be expected therefore that in a state of imperfect information, financial repression can improve efficiency in capital allocation (Stiglitz and Weiss, 1993). This due to several factors, among which; 1) the lowering of interest rate on credit improves the average quality as well as quantity of the pool of loan applicants; increases firm equity base since it lowers the cost of capital; if used in conjunction with alternative allocation mechanism for instance export performance to accelerate economic growth can propel development; and encourages direct credit programs to priority sectors associated with high spillovers.

It is in the backdrop of such developments that a rethinking of the growth and development process is underway with emphasis being put on the role to be given to private initiative and market mechanism in agriculture in light of the immense distortions that came to the fore as the crisis begun to bite which called for not only ad hoc corrective measures but also a dramatic re-assessment of key areas such as subsidy policies, directed credit programs, and direct government involvement in agricultural production (Rozelle et al., 1997). The prevailing material conditions show that due to a multitude of factors small operators in the economy find it hard to obtain credit, both the timing and size required.

The factors include the high rate of interest on credit in rural areas; the high cost of obtaining additional reserves of credit, which includes charges for administration, are extremely high; the immense cost of operating very many small size accounts due to high operating costs. Another factor is the short term maturity of most credit provided in the rural sector, which implies that administration cost of lending and collection must be spread out over a short period. The prevalence of low incomes means that savings are very low, with the result that the source of funds

for credit provision in rural areas owes its origin to urban areas. Moreover, the woeful absence of the capacity to save among the rural population is aggravated by an equally inept institutional framework to mobilise and channel credit. Such conditions leave moneylenders with semi-monopolistic position, since they have no effective competitors in supplying rural credit. Such conditions favor the emergence of exploitative practices undertaken by moneylenders who charge such extortive practices that leave borrowers insolvent inducing them to eventually relinquish their material wealth in meeting their obligations. The government regards such practices as inimical to rural and agricultural development, which justifies its intervention in the provision of such a crucial service. The extortive cost of private credit aside, government intervention in credit extension is induced by the need to ensure that key sectors are protected from unscrupulous banking practices, conducted by individuals merely out of private interest

Agricultural Extension Service and Targeted Credit Programs

Realizing that credit performance fell short of expectations the government injected resources in training and disseminations of field agricultural officers to accompany credit extension. The part played by scores of extension officers who crisscross mainly rural areas has never been greater. The main focus for changing the reluctant farmer into the most adoptive of new innovations is put on the shoulders of these arduous men and women. The efforts of extension servicemen haven't been fruitless. For being the prime-movers of the farmers towards better farming practices as well as equipping them with skills to utilize appropriate technology, *sine quo non* for increase in total factor productivity. It is thus hardly an overstatement to refer to the role expected of agricultural extension workers as the prime movers of agricultural development and linchpins of national advancement. The importance of education in attempts to enhancing agricultural productivity is one of the most highly researched topics, evidenced by a number of studies that analyze directly or otherwise, the significance of the level of the farmer education towards agricultural output (Lockheed et. al., 1980; Yang, 1997). There is a multitude of reasons that have made the importance of farmer education quite an interesting area for research. Such factors include, among others; 1) being

part and parcel of a rural development strategy that aims at fostering all aspects of agricultural growth through technological change with the main objective of spreading the scope of growth and development to small farmers; 2) complementarity of education with new inputs, such as chemical fertilizers, pesticides, irrigation, high yielding varieties, and use of extension services, Lockheed et. al. (1980); 3) farmer education affects the cost of information, which is an important variable in new technological adoption as well as in obtaining credit affects the exposure to extension services; 4) influences the perception towards risk possessed by the farmer; and 5) level of allocative efficiency.

A synopsis of various studies on education and farm performance, Lockheed, et. al. (1980), and Philips (1994) provide us with both the specific importance of education towards a particular country's agricultural productivity and the general relevance of education in rural development in a number of developing countries. Most of the studies analyzed confirm the notion that education positively affects farmer productivity; hence farm efficiency, with an average 4 years of education stimulating productivity to the tune of 7.4 per cent, which is far from a negligible contribution. The synopsis underscores the fact that the impact of education on agricultural productivity is significantly influenced by the environment in which the farmer carries out the agricultural activity. The impact of education on farmer productivity highly enhanced by the prevalence of modern environment, which is manifested in the availability of capital inputs, new crop varieties, innovative planting methods, insecticides, fertilizers, tractors and machines, market oriented production, and exposure to extension services.

It thus becomes apparent that though education is important in stimulating growth, it is not by itself a magic wand without the supporting environment. The contribution of education to agricultural productivity is found to be affected significantly by the prevailing social-economic conditions. While four years of formal education for farmers working in modern conditions stimulate growth to 9.5 percent, the same level of education for farmers working under traditional social-economic conditions causes a mere 1.3 percent increase in output (Lockheed et. al., 1980: 57).

On the linkage between exposure to extension services and farmer productivity, the overall inference is that the influence is significantly positive. This implies that the possession of non-formal education, which takes such forms as farmer experience obtained after many years of contact with formal extension service workers, exposure to agricultural magazines, agricultural broadcasts, making visits to the farmer's training center, exposure to adult extension classes, and visiting demonstrations, positively influences farmer's productivity. Research findings in addition show that the role of formal education has an interacting influence with non-formal education variables in its impact on agricultural productivity. Agricultural productivity is enhanced manifold if formal education is in simultaneity with the availability of non-formal education opportunities, in an environment that is conducive to, and beneficial for, the applicability of such knowledge as is obtained Shiff and Montenegro (1997). It is thus expected that the exposure to extension services by improving farmer's farming practices should have reduce farmer's probability of defaulting on his loan commitments. It follows from the foregoing that more agricultural field officers should reduce the bad loans encountered by the lending community.

The importance of the extension service function is well illustrated by the functions and obligations expected of them by the Ministry of Agriculture the evidenced in the status and responsibilities bestowed upon them (Figures 2 and Table 4). The functions of the agricultural extension workers/officers are stipulated in the Minister of Internal affairs-Minister of Agriculture Number 54 of 1996, SKB Number 301/Kpts/LP.120/4/96 that lays down guidelines pertaining to status, placement, and work. These encompass the following areas Department of Agriculture (1998: 38) 1) the farmers' and fishermen aspirations alongside those of their entire families; 2) policy and programs geared toward the development of agriculture; 3) the conducting of agricultural extension service; and 4) as source of technology, information and social economic innovations; 4) didactic and technical approaches and methods of agricultural extension services.

Concisely, the field worker has to initiate and maintain constant and consistent interaction, communication, and continuous involvement in

all social and economic institutions that bear on farming practices. In accordance with such demands the tasks of agricultural extension workers include, among other things: investigating the potential of an area considered relevant in the process of advancing agricultural development and optimization of both human and natural resources; identifying farmer's capacity to adopt technology, the need for processing as well as enabling the development of farming and fishing units to commercially viable scales; formulating farming and fishing recommendations that can be passed on to farmers and fishermen for their advancement; identifying decisive factors and social problems attendant to the development of farming and fishing patterns and practices; and inducing public participation, and encouraging the adoption of appropriate technology in farming activities.

It is not an overstatement to refer to the role expected of agricultural extension workers as the prime movers of agricultural development and linchpins of national advancement. As regards the relationship between extension service and credit risk it is expected that the knowledge the farmer receive from agricultural extension officers, improves his production skills and practices. The farmer gets to understand the optimal input requirements needed to produce given outputs including the amount of credit to be employed in acquiring them; he is informed of the meaning such credit that is extended enabling the farmer to know that it has to be repaid ; obtains the information about the availability and the associated cost of credit available from different sources. The farmers thus, should indicate a lower delinquency rate in line with more frequent visits by the extension officers.

The distribution of extension staff should paint a general picture on the performance of agricultural service extension as an instrument for improving farmers' farming practices in line with ever changing demands (see Table 1). Provinces with the large number of extension staff include West Java 3,760 of which 310 are S1 graduates, 18 Master holders, and 5 holding doctorates. This is followed by East Java with 3,640 out of which 498 are S1 graduates, 10 are holders of S2, and 8 holders of doctorates. Central Java follows with 3,265 extension staff, out of which 225 are S1 graduates, 12 are Master holders, and 2 doctorate holders. It isn't the number of agricultural staff that is crucial here, but the spread of such

Table 1
Number of Agricultural extension Officers by Province and level of education in Indonesia in 1998

Province	Level of Education							Total
	Graduate			Non Graduate				
	Doctorate	Master	Bachelor	D.3	D.2	D.1	SLTA	
Nanggroe Aceh Darussalam	2	2	139	119	0	62	714	1038
North Sumatra	4	6	112	185	2	56	1581	1946
West Sumatra	1	7	90	229	0	10	954	1291
Riau	1	3	52	139	0	6	936	1137
Jambi	0	2	45	62	3	28	1050	1190
South Sumtra	1	4	79	124	1	73	1708	1990
Bengkulu	1	1	128	73	0	15	485	703
Lampung	4	10	91	191	3	73	985	1357
DKI. Jakarta	1	0	29	52	0	4	80	166
West Java	5	18	310	361	7	11	3048	3760
Central Java	2	12	225	544	1	57	2424	3265
Yogyakarta Special Region	0	2	45	130	0	5	317	499
East Java	8	10	498	388	3	34	2699	3640
West Kalimantan	2	3	63	102	0	46	895	1111
East Kalimantan	0	1	70	93	0	9	605	778
Central Kalimantan	0	0	66	124	0	85	711	986
South Kalimantan	2	7	111	177	0	40	888	1225
North Sulawesi	3	1	87	76	2	78	906	1153
Central Sulawesi	1	4	54	121	1	30	642	853
South East Sulawesi	1	1	59	121	2	34	786	1004
South Sulawesi	3	6	183	250	1	51	1793	2287
Bali	3	4	94	108	1	9	484	703
West Nusa Tenggara	0	4	130	129	0	14	762	1039
East Nusa Tenggara	0	3	74	141	0	28	940	1186
Maluku	0	1	45	36	1	34	833	950
Papua	0	0	61	75	1	28	1010	1175
Total	45	112	2940	4150	29	920	28236	36432

*The province of Timur Timor was still part of Indonesia.
Source: Center for Agricultural extension, Ministry of Agriculture, Republic of Indonesia

staff over a given province For example. Bali small though it is boasts of 703 staff out of which 108 are S1 graduates, 4 Master holders, and 3 doctorate holders Central Kalimantan has 986 staff out of which 66 are S1 graduates with the rest graduates of D3, D2, D1 and High school. Yogyakarta Special Region one of the smallest provinces has a 499-man group, out of which 45 are Bachelor 1 graduates, and 2 Master holders, 130 D3, 5 D1 holders and 317 high school graduates. It is observable that a large province such as West Kalimantan has relatively fewer extension staff than either Bali or Yogyakarta, which hampers their operations. Thus, the high rate of default of 8 per cent in West Kalimantan is difficult to reduce due to the too few people covering a large area. Bali and Yogyakarta have zero percent and 1 per cent respectively. Provinces with well spread extension staff according to education include, West Java, East Java, Yogyakarta Special Region, West Sumatra, East Kalimantan, and Lampung province is however an exception for despite a good distribution of extension service according to education level attained is relatively good, it has high default rate of 6 per cent. Irian Jaya, Maluku, North Sulawesi, and Central Kalimantan do not have well distributed extension staff pull the rear with high default rate.

The possibility of a positive correlation between the levels of good quality extension staff on farm credit repayment rates cannot be ruled out. Provinces with good extension staff but high default rates include Maluku and Aceh special administrative region. This indicates that the performance of the credit program is not only determined by factors that directly impinge on it, but also the social, economic, political and doubtless, cultural factors. It has been argued that the spread of agricultural extension service was far from sufficient. This could be one of the reasons for the high default rate on farm credit arising from inappropriate input applications that were not in accordance with quantity and quality of produce.

In a similar note, directed credit programs experienced high default rates due to poor monitoring of credit use to ensure that credit went for the purpose for which it was borrowed. This is also points to the ineffectiveness of agricultural extension. The performance of extension service agents was however, depended on the number that covered each area, hence if it was thin, there was no way effective advice provision on farm management, credit use, product marketing, and storage could be

made as desired. Moreover not all areas outside Java had access to extension service agents with the necessary education to provide requisite advice as was received by regions on Java and Bali islands

Poverty Incidence and Farm Credit Default Rate

Several indicators show that poverty incidence shot up as a result of the economic crisis (see Table 2 and Table 3). Such evidence is undeniable according to poverty incidence data of 1999. Other indications of an increase in people living below the poverty line included the rise in the average per capita monthly expenditure spent of food items in 1999, an indication of increasing emphasis on food, a reduction in consumption expenditure by the lowest 40 percent of the population in the same year. The rise in the cost of living caused by the depreciation of rupiah and high inflation, affected the lowest 40 percent seriously. Their ability to afford non- food items was undermined as the food stuffs shot up. Without national social security to fall back to, belt tightening was unavoidable to many people. Contraction of the economy led to millions being laid off, adding to open and disguised unemployment. Most laid off workers joined the ranks of those whose incomes fell below the poverty line. The decrease in investment opportunities in the wake of the crisis sparked it off a decrease in formal sector employment as laying off increased. Most laid off workers found their way into informal sector activities to make both ends meet. The effect of the economic crisis impacts provinces with high poverty incidence levels as there are few opportunities to sustain regional economies. The effect of laying off workers in the formal sector significantly reduces consumption expenditure, fuels informal employment, increases family food insecurity. The effect of all such conditions is to increase the probability of credit fungibility, which increases the risk of default. The tide shows signs of turning for the better in 2000 and 2001 for most indicators except formal employment. However, indicators show signs of deteriorating in 2002.

The position of farm credit non repayment by late 1999 was as depicted in Table 2. The range of non-performing rate on farm credit was 8 per cent, the highest being 8 per cent and the lowest being 0 per cent. The mode non-performing farm credit rate was 3 percent evident in eight cases. The province with the highest default rate was West Kalimantan 8

Table 2
Some indicators of people welfare 1996-2002

Year	1996	1999	2000	2001	2002
Amount spend on food Non-Food	55.34 44.66	62.94 37.06	64.91 35.09	64.13 35.87	58.47 47.18
Per capita income share by lower 40 % of population	20.27	21.66	-	-	20.92
Total population with Incomes below the poverty line (millions)	34.5	37.1	38.7	37.9	38.4
Employees in the informal sector (Millions)	-	55.9	58.3	61.4	62.4
Employees in the formal sector (Millions)	-	31.9	31.5	29.4	29.2
Open and under Unemployment	-	37.4	35.9	38.4	38
Growth in GDP (%)	-	0.8	4.9	3.4	3.7
Growth in consumption (%)	-	4.3	3.9	4.8	5.5
Growth in Investment (%)	-	-18.2	13.8	7.7	-0.2

Source : Bank Indonesia Annual report 2002,2001; BPS

per cent, followed by Maluku with 7 per cent; five provinces experienced 6 per cent non-performing farm credit. These were Aceh special administrative region, West Sumatera, Jambi, Bengkulu, and Papua. Two provinces South East Sulawesi and South Kalimantan indicated nonperforming farm credit to the tune of 5 per cent.

Three provinces experienced 4 per cent default rate on farm credit. These were South Sumatra, Riau, and North Sulawesi. On the other hand, 3 per cent was exhibited in eight provinces. These were West Java, South Sulawesi, South Sumatera, Central Sulawesi, Lampung, East Kalimantan, East Nusa Tenggara, and DKI Jakarta. Provinces suffering under the overhang of nonperforming farm credit of 2 per cent were four namely, Central Java, East Java, West Nusa Tenggara, and North Sumatra. The Province that experienced just 1 per cent of nonperforming farm credit was Yogyakarta Special Region and the remarkable province with the entire farm credit performing basing on late 1999 data was Bali.

Several observations are in order. Foremost of all is the fact that roughly the non-performing rate of 3 per cent serves as the demarcating rate for

Table 3
Poverty incidence and Farm credit default rate 1999-2002

Province	Poverty Incidence (%)					Farm credit default rate (%) 1999
	1996	1999	2000	2001	2002	
Nanggroe Aceh Darussalam	12.72	14.75	-	-	29.83	6
North Sumatera	13.22	16.74	13.39	15.21	15.84	2
West Sumatera	9.84	13.24	11.32	17.47	11.57	6
Riau	12.62	14.00	13.71	14.30	13.61	4
Jambi	14.84	26.64	20.77	21.65	13.18	6
South Sumatera	15.89	23.53	16.38	20.71	22.32	3
Bengkulu	16.69	19.79	19.90	26.23	22.70	3
Lampung	25.59	29.11	31.14	27.20	24.05	3
DKI Jkta	2.35	3.99	-	-	3.42	3
West Java	11.06	19.78	16.26	22.17	13.38	3
Central Java	21.61	28.46	21.77	29.38	23.06	2
Yogyakarta Special Region	18.43	26.10	45.17	38.65	20.14	1
East Java	22.13	29.47	27.17	28.20	21.91	2
Bali	7.81	8.53	5.85	11.35	6.89	0
West Nusa Tenggara	31.97	32.96	29.24	35.38	27.76	2
East Nusa Tenggara	38.89	46.73	39.25	36.95	30.74	3
West Kalimantan	24.21	26.17	35.85	22.36	15.46	8
Central Kalimantan	13.50	15.06	14.59	14.86	11.88	4
South Kalimantan	8.53	14.37	17.86	15.92	8.51	5
East Kalimantan	9.73	20.16	28.94	21.11	12.20	3
North Sulawesi	17.94	18.19	15.36	11.76	11.22	4
Central Sulawesi	22.31	28.69	27.09	28.20	24.89	3
South Sulawesi	16.71	18.32	15.59	20.21	15.88	3
South East Sulawesi	29.23	29.51	27.40	29.68	24.22	5
Maluku	44.57	46.14	-	42.83	34.78	7
Papua	42.26	54.75	59.78	53.14	41.80	6
National Average	17.65	23.43	22.14	24.95	18.20	3.73

Source: Ministry of Agriculture, Republic of Indonesia, Central Bureau of Statistics

provinces on Java and outside Java; the rate above 3 percent is seen to be very common in the latter areas. Bali stands out as the province with zero default, while West Kalimantan tops the list in default. The former represents one of the most prosperous provinces in Indonesia with just 8.53 percent (1999) of its population categorized as having annual incomes falling below the poverty line, while the latter had 26.17 percent, which does not deviate very much from the national poverty average of 23.43

percent in the same year. Aceh has a low poverty incidence rate of 14.75 lower than the national average, but experienced a default rate of 6 percent on farm credit. Maluku with 42.83 poverty incidence rate in 1999 experienced a high default rate of 7 percent. West Nusa Tenggara and East Nusa Tenggara had 2 per cent and 3 per cent of farm credit default rate, and experienced poverty incidence of 35.38 percent and 36.95 percent, respectively, which discounts suggestions of an association between poverty incidence and failure to repay farm credit. West Kalimantan with poverty incidence of 26.17 per cent and had the highest rate of non-performing farm credit of 8 per cent, South Kalimantan had 14.37 of poverty incidence in 1999 with a default rate of 5 per cent, while Central Kalimantan with poverty incidence of 15.06 per cent experienced 4 per cent of farm credit non-performing.

However, Papua with a poverty incidence rate of 54.74 the highest in the country and has a high default rate on farm credit of 6 percent. It is likely that the high incidence of poverty in the province might be partially responsible for the high default rate. Other factors, which are vital include the scarcity of extension officers, vast terrain, scant infrastructure, and political instability. The possibility of an influence of culture on the repayment rate can not be entirely ruled out. This can be attested by the proximity of West Nusa Tenggara and East Nusa Tenggara, both provinces with high incidence of poverty depict low default rates. In general (see Table 3 and Figure 1), there is no apparent linear relationship between poverty incidence in a province and default rate on farm credit. This is the result of correlation test of the two variables which produce a small magnitude of .24 which is not significant. It is worth noting that provinces with serious social disturbances such as West Kalimantan, Aceh, Maluku, and Papua experienced relatively high default rate, which was in no way due to the number of its population with annual incomes falling below the poverty. The year 1999 saw the intensification of inter-ethnic conflicts in the three provinces, which hampered loan collection efforts. The 'state of the world' is exogenous to the credit disbursement and collection functions on one hand, and usage of the credit in farm operations by farmers on the other. It is a factor that is difficult to factor in by both lender and borrower. Yet the variable very much alters the material conditions for the worse with attendant adverse effects to all parameters

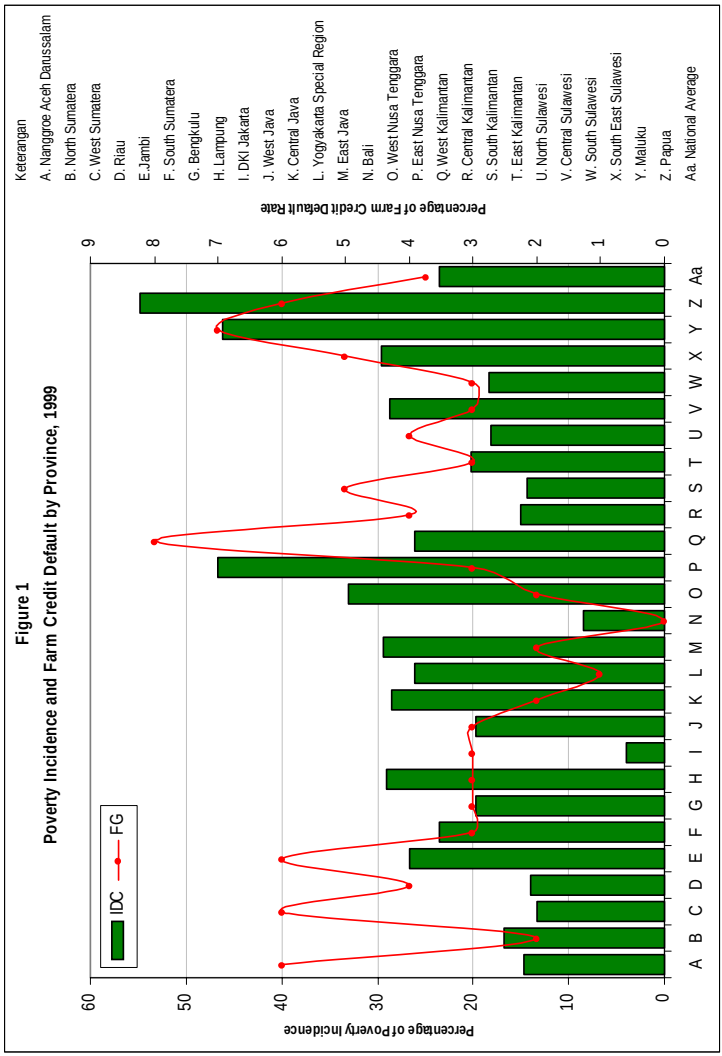


Figure 1
Poverty Incidence and Farm Credit Default by Province, 1999
Percentage of Poverty Incidence
Percentage of Farm Credit Default Rate
IDC
FG
Keterangan
A. Nanggroe Aceh Darussalam
B. North Sumatera
C. West Sumatera
D. Riau
E.Jambi
F. South Sumatera
G. Bengkulu
H. Lampung
I. DKI Jakarta
J. West Java
K. Central Java
L. Yogyakarta Special Region
M. East Java
N. Bali
O. West Nusa Tenggara
P. East Nusa Tenggara
Q. West Kalimantan
R. Central Kalimantan
S. South Kalimantan
T. East Kalimantan
U. North Sulawesi
V. Central Sulawesi
W. South Sulawesi
X. South East Sulawesi
Y. Maluku
Z. Papua
Aa. National Average

that influence loan repayment. Data on loan disbursement got destroyed which complicated the process of tracing the level of repayment made by debtors, and increased moral hazard among those who by the advent of the event had not repaid. Essentially, the change in social-economic conditions increased the benefits for non-repayment for all debtors. However, that said, it is inconceivable that any lender would offer credit to the percentage of the population whose income falls below the poverty line as they lack security, do not know the existence of such credit any way, do not engage in activities that are financed by credit disbursements.

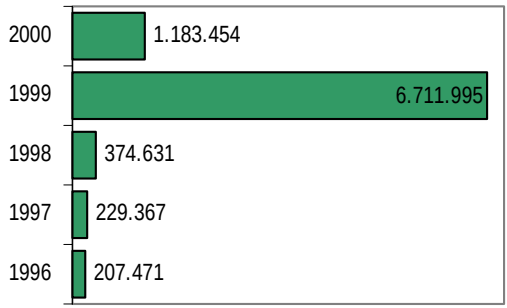
Achievements and Failures of Targeted Credit Programs

Directed credit policy involves the extension of low interest rate credit to prioritized sectors, sub sectors or individuals by state owned banks, private banks, and specialized financial institutions in compliance with the directives issued by the government. This policy is manifested in several selective credit policies adopted in developing countries over time which encompass subsidized loan rates; refinance schemes with differential rediscount rates; direct budgetary subsidies; credit floors and ceilings; imposing reserve requirements on banks; credit guarantee schemes; lending by development finance institutions and specialized financial institutions (Odedokun 1996; Fry 1995; Rachbini, 1999: 24). As an example the Indonesian government subsidized credit to the tune of 2.2 trillion and 2.47 trillion in 2001 and 2002, respectively. (Bank Indonesia, 2002: 1) The motivations for directed credit policy programs among others, include (d): the encouragement of low yielding but socially desirable investments necessary to promote growth and development; the setting of low long-term rates of interest to encourage firms in priority sectors to undertake long-term investments at lower risk than would have been the case without government involvement; ensuring credit allocation to enable the undertaking of those investments considered pivotal for fostering economic development; making loan rates lower than deposit rates to encourage low cost investment; easing accessibility of cheap credit to sectors normally considered risky hence credit rationed as one of the means of reducing income disparity between economic sectors; and provision of cheap credit. to increase the level of food self-sufficiency.

The pursuit of credit program policy by the New Independent Indonesia government was a continuation of that initiated by the Dutch Colonial Regime. The initial objectives encompassed ensuring an increase in rice production to serve the bureaucracy and workers who were staying in urban areas, enhance farmers' incomes, promote productivity increases, which would increase taxation capacity for the government, and foster food self-sufficiency (Tweeten, 1978; Tolley et. al., 1982; Timmer, 1975). Concisely, the objectives of credit program under the colonial regime entailed efforts to satisfy the subordinates in order to ensure smooth running of the government. It was the underlying reason, then and it is still even truer today. Small wonder therefore that governments have come and gone, yet have not affected this one spirit to this day. Many such programs have been carried with mixed results over time, with the underlying theme being the attempt to improve on the flaws fraught in previous ones. In the course of running successive credit programs much headway was accomplished in a number of areas. There is no better illustration of this than government involvement in directed credit policies conducted right from the late 1950s to the present.

In Indonesia, the role played by the government in credit provision is indicated by government rice intensification programs that begun with Padi centra 1959-1962, followed by action research 1963-1964. Demas took effect between 1964-1965. The Bimas program, which was aimed at the mass guidance of the farmers as a means of increasing their receptiveness to modern farming practices and technologies, was conducted in the period 1965-1966. As was the case with programs prior to Bimas it had its shortcomings, and in an attempt to make improvements, a new program came into the picture, Inmas 1967-1968. The government of Indonesia in association with other foreign governments came up with a new massive program, called Bimas gotong royong, which reigned in the period 1969-1970. Under the guidance of the government and Bank Rakyat Indonesia (BRI), the improved Bimas was initiated in early 1970s. This was later renamed the farm credit program *Kredit Usaha Tani* (KUT), and is currently known as credit for food security *Kredit Ketahanan Pangan* (KKP) (see Figure 2). There is ample evidence from researchers on rice intensification programs, for instance Sendjaja (1980), Gunawan (1982) that indicate the fact that directed credit program undertaken by

Figure 2.
Farm Credit Disbursement from 1996 to 2000
(in Millions of Rupiah)



the government have made quite phenomenal breakthroughs in a number of areas. It is for example indicated that through such credit programs, the productivity of resources improved quite dramatically. This is due to the use of more and better fertilisers, investment in land and ability to pay for required labour. More rice output from each farm reduces on the food security situation in Indonesia, and this was achieved at a time when there was no remarkable increase in the size of farms. There was also increased purchasing power as a consequence of higher incomes, which spilled over to other economic activities. It is thus pertinent to state that the rice intensification program fostered growth and development in Indonesia.

The biggest contribution of the government is in the area of bank credit provision to priority sectors, especially agriculture. Providing credit to such sectors as agriculture that face high fluctuations of both prices and output, the risk involved is rather too high for private lenders whose main interest is stable and high profits margins. The vagaries in agriculture make it unattractive to most private lenders with eyes focused on immediate profits. Thus, the role of the government is quite remarkable in this area. This is in form of subsidized lending, which despite intense criticism has enabled the successful adoption of High yielding varieties in many a developing economy. It is because of such directed credit programs that farmers were willing to alter their traditional farming practices to modern ones in line with High Yielding Varieties.

Credit was provided for buying, seeds (HYVs), fertilizers, fungicides, working capital, irrigation and road infrastructure (Sendjaja, 1980). The contribution of such programs towards revolutionizing agriculture in the

developing world is no longer in doubt (Pingali, 1997; Hayami and Ruttan, 1985).

Credit programs, thus induced agricultural modernization in areas favorable for the growing of rice, by increasing the application of modern technology in farming such as mechanization of planting, harvesting, and threshing As a result areas that benefited from such programs experienced increases in productivity and income (Otsuka et al., 1992; Nguyen and Chieng, 1997; Yang, 1997).

Government credit programs have in addition had long-term effects on agricultural inputs procurement and marketing mechanisms, which were made easier through the provision of infrastructure, social services, research and extension services, establishment of viable smallholder schemes which indirectly improved the feasibility of all agricultural projects (Binswanger and Deininger, 1997: 1962). Targeted credit programs accompanied by efforts to educate the farmer since by so doing their knowledge on modern farming practices, health, and managerial practices improves. This elevates their acceptability of new technology as well as appreciation of the tasks at hand and value of any such programs (Lockheed et al., 1980; Nguyen and Chieng, 1997; Phillips, 1994).

In the course of time what had begun as a focused policy, was expanded to include various commodities and sub sectors, using a variety of financial repression mechanisms to mobilize the financial resources. The shift from interest rate to administrative allocation of credit became more apparent with the dramatic increase in windfalls from oil revenue. The effect of such a multiplicity of selective credit policies on the credit market is illustrated by the fact that by 1980 state owned commercial banks (Fry, 1995) "allocated 80 per cent of total domestic credit, through 19 short-term loan categories, three re-discount ratios that ranged from 3 to 6 per cent, 8 proportions of a loan eligible for rediscount ranged from 25 to 100 per cent."

The process of providing cheap credit to priority sectors meant that interest rate on deposits was set at higher level than on credit disbursed, a phenomenon called interest rate inversion. This meant losses to banks which had to be covered by the government through budget allocations

for the purpose. This repressed financial sector growth and development (Bencivenga and Smith, 1991; Berthelemy, and Varoudakis, 1996).

Massive injections of credit undertaken by the Indonesian government left immense costs in their wake. This is evidenced by the high delinquency rate of the direct credit programs with Bimas showing an increase in default rate of 26 per cent in 1983-1984 period from 7.9 per cent of the 1973-1974 period, which was astounding by all accounts; farm credit (KUT) showed the most stunning delinquency rate hitting 91 per cent in the 1988/1989 period from 18.6 per cent 1984/1985 (see Figure 1).

Moreover, the grim picture for directed program isn't complete if one doesn't mention the fact that the government of Indonesia has had to write off defaulted farm credit (KUT) loans to the staggering tune of Rp.117 billion (see Table 3). Yet such an amount was in addition to another colossal Rp. 165 billion for 1995-1997 periods, which had to be rescheduled, and some completely written off. The high default rates on farm credit are attributable to lack of proper prior investigation into the needs of the farmers in terms of form, amount, and timing; low collateral capabilities of farmers; insufficient credit supervision; and absence of incentives for repayment (Fry, 1995: 451).

Moreover, the effect that credit programs had on the eating habits of Indonesian was not always for the better, especially as far as the sustainability of such programs was concerned. This is evidenced by the effect credit program for rice had on many Indonesians who were encouraged to substitute their staple crops from the much available and easily grown traditional crops such as maize, sweet potatoes and cassava to rice and wheat products. This was because rice and wheat became cheap, easily available thanks to huge subsidies on inputs and output prices. The demand for the two commodities is higher than the country can produce (demand for rice grows by 8 percent while domestic production grows by a mere 4 percent) which, means that millions of dollars have to be earmarked for importing the two commodities (Mears, 1981).

Government involvement in agriculture through credit extension led to an upsurge in production costs. It should also be noted that the credit programs did not cater for land improvement, despite the fact that land

represented the largest portion of total capital investment on rice farms in Indonesia. Government credit programs, which were generally extended under directives from the center encouraged the financing of activities that had low returns, as allocation wasn't based on the expected return of a project rather on social-political considerations. This meant that some projects with high returns were sacrificed for projects that were selected on dubious grounds, resulting into great loss in resources (Dewatripont and Maskin, 1992). Small wonder some researchers have found out that the degree of government involvement in the procurement of agricultural inputs is shown to have negative repercussions on the growth and development of the agricultural sector in general, especially with regard to the distortion in input prices that such intervention causes. Offering subsidized loans to farming activities, despite having positive effects on the production of the commodity that benefits from such program has a long term detrimental effect on agricultural growth and development (Odedokun, 1996). This is because such measures reduce the attractiveness of farm activities to lenders other than the government, distorts and increases the fragmentation of the prevailing credit markets.

Low cost credit to priority sub sectors such as rice intensification program in Indonesia deprived ample resources for other sub sectors within even higher economic returns. Since directed credit was in effect public investment, it crowded out private investment. Evidence is abound on the rate of default exhibited by the improved Bimas programs, depicting a 60 per cent repayment rate from 88 per cent for the period 1973-1974- and –1975-1976 respectively Sendjaja (1980: 56). This implies that banks were forced to hold assets on their portfolios which were not profitable.

The high default rate experienced on credit programs was is in a way associated with the high level of top-down decision making that left farmers mere recipients of recipes concocted elsewhere. The credit provision element played a big role in influencing the rate of default. Where farmers were not given inputs in form of inputs, the failure rate was considerably high, according to (Sendjaja, 1980: 55). The default rate was also high because credit by not being generated by the bank itself, made its monitoring difficult, and in fact there was hardly any incentives for banks to do so. This was another case of too much government.

The foregoing is illustrated by the fact that banks merely served as conduits, rather than generators of such credit, thus had neither the incentive nor the legal framework to monitor credit use and collection. Another point worth mentioning was the number, quality, and the spread of agricultural extension services effort apparently left a lot to be desired. Yet the adoption of new technologies highly called for increased extension service provision if success was to be achieved.

Lack of flexibility in credit provision was another shortcoming that contributed to the underperformance of credit programs. Credit to farmers growing the same crop but in different sociological-ethnographical regions had similar terms of disbursement and repayment hardly ample time was spent on studying the underlying customs, beliefs, attitudes, and values recipients cherished (Baker and Bharghava, 1974; Devereux and Fish, 1993). A good understanding of the society should have enlightened the government on societies that regard any money issued by government as a gift, those that likely to abuse the money through gambling, and those who borrow because 'neighbors-applied-for KUT and they- got- so- why-not- we, mentality.

It should be noted that credit allocation could not escape the long hands of the bloated state bureaucracy at the village, *kecamatan*, regency, and province levels all of whom had some role to play in the channeling process (Woodhouse, 2002; Ray, 2003). This meant increased time, effort, and cost for loan applicants. It can not be ruled out that a sizable part of the credit that farmers officially signed for was never spent on the intended farming activities as it merely went into bank accounts of state officials as facilitation payments. Having to repay the entire credit including the proportion that had never been put to use merely increased the probability of default.

The channels used in extending directed credit lacked well streamlined procedures of credit disbursement, monitoring and repayment collection; lacked sufficient expertise to manage credit disbursements and collections, thus contributed a lot to the sub optimal performance of program credit. This was true in case of farm credit in Indonesia where village cooperatives KUD were used as the main channel for distributing farm credit. Besides, KUDs suffered from scanty institutional capacity, poor management,

outright incompetence, were founded on collectivism which meant once the a good number of members default all members of the group have to default, as the loan is the responsibility of the entire group(Besley and Coate, 1995). Hardly did state officials responsible for channeling credit exploit, let alone bothered to study, the existing structure of social, economic, political, and cultural relationships in societies that became recipients as vital information in designing appropriate procedures, mechanisms, and models of disbursement, monitoring, and collection. State coercion was apparent in all aspects of credit program from policy formulation to program appraisal it was top down, the beneficiaries who should have provided key information on size, timing, spatial distribution, viable cost, and effective channels were not involved at all.

It is not disputable that the vastness of land masses that were covered on large ,but scarcely populated islands of Kalimantan, Papua, and Sulawesi increased the difficulties of credit assessment, disbursement, monitoring and collection. This possibly underlies the generally high default rate in provinces on Islands outside Java-Bali. The inaccessibility of many areas on such Islands couldn't not make things any better.

Directed credit programs perform poorly because of the programs' susceptibility to fungibility in forms of financial substitution and real expenditure substitution (Odedokun, 1996). Under financial substitution farmers fail to distinguish credit borrowed to fund rice production for example from other funds they have at their disposal. This increases the difficulty to determine the amount spent on the intended farm activity, complicates the process of monitoring credit use, and inevitably increases the probability of default. The farmer may however condone fungibilty by not create a distinction between spending on the intended farming activity for which money was borrowed and other activities such as household routine expenditure, lending to neighbors, and so on. He thus condones real expenditure substitution. It is evident that such a phenomenon occurs if the beneficiaries of the credit in question are not adequately monitored and enforced to ensure that they utilize the credit for the purpose it was intended.

The act of regulating interest rates by the government is predicted to worsen the problems associated with *credit rationing.* This is because

these policies inhibit the development of the financial sector credit, and reduce the viability of the lenders by making it difficult to enforce credit constraints on borrowers. The existence of limited liability in agricultural loan agreements limits the recovery of outstanding and delinquent loan principal to the assets secured or collaterized by the agreement. Loan default is high for agricultural loans because the lender can only recover the loss to the tune of the secured assets. Such limited liability and financial risk engender excess demand relationships because credit is supplied at lower than marginal cost of funds, which thus benefits credit users. The set interest rate moreover does not take account of the financial risk the lender faces due to limited liability agricultural loans have. In such situation lenders have to provide the inelastic loan supply they have to an elastic loan demand through rationing it.

Besides, the rapid expansion of lending in order to reach mandated targets implies that the focus is tailored towards quantity disbursed at the expense of quality, an explanation that accounts for the high delinquency rates on successive government credit programs since the early 1970s. Moreover such lending, as was the case in India isn't oftentimes tied to productive investment, which precludes repayment from the very start credit is disbursed. The Neglect of marketing activities yet at the same time linking credit recovery to the sale of the product implies that it isn't unusual for the farmer to find it difficult to dispose of the commodity, the production of which much credit was spent. The case of farm credit to Onion farmers in Brebes 1999 comes to mind[2]. Such woeful mismanagement doesn't augur well for good repayment rates.

Defective loan policies manifested in delayed loan disbursement, too much or too little credit, and un-realistic repayment schedules, which do not incorporate farmer's farming practices. Ineffective and insufficient

[2] Farmers in Brebes, Jawa Tengah renowned for its Onions obtained liberal volumes of farm credit channeled through KUDs or Village cooperative Units. Apparently, the focus of the KUDs was to beat the target of the amount that had to be dispersed disregarding the impact of such actions on the marketability of the product covered. The consequence was that there bumper harvest of onions for full time farmers as well those who had been attracted by liberal doses of farm credit lead to over production. The Onion prices plummeted, and the only source of repayment of the loans, selling the output was out of the question. Immense funds invested therein could hardly be recouped.

supervision arising from deficient manpower to do the job as well as the rapid and hasty expansion of the credit provision to reach the stipulated target leads to too few agricultural extension service men spread over vast stretches of territory. Lack of responsibility and discipline on the part of borrowers attributed to mainly cultural factors, where loan repayment isn't a familiar feature, regarding government credits as grants (one of the key problems that affected Mass guidance loans in Indonesia) (Tinjabate, 2001).

Directed Credit Programs: Challenges Ahead

A close analysis of targeted credit Bimas, Inmas, and KUT Paddy reveals a number of issues see (Table 4). Evidence of inconsistence in the rate of credit growth. While in one fiscal year there is phenomenal growth, the following year might see a drastic reduction in credit growth. Evidence of this is abound. In 1973/1974 saw the growth rate in credit extended of 140 per cent an increase of 85 per cent from the previous fiscal year, only to be followed by a reduction of credit extended of 45.2 per cent. There is non-linearity in the relationship between rate of credit growth and default rate. For instance the growth rate of 140 per cent 1973/1974 was associated with the default rate of 7.9 per cent, an increase in of 3.3 from the previous fiscal year.

However, the contraction of credit growth of 94.8 percent in 1974/1975 fiscal year saw a reduction in an increase in default of 8.8 per cent from 7.9 the previous fiscal year. Despite some periods of low default rates, the general tendency for default rate to rise over time. From 1971/1972 the default rate rises until 1978/1979 fiscal year. This is despite episodes of credit growth contractions of –1.4, -12.3, -3.5, -17.9 in 1976/1977, 1977/1978, 1978/1979, and 1979/1980, respectively. The emergence of KUT farm credit in 1985/1986 fiscal year despite phenomenal growth in the rate of credit extended of 85.6 per cent from the previous year's disbursement, was associated with a reduction in default rate of 8.3 pre cent from 18.6 per cent in the 1984/1985 fiscal year. This represented a decline of 10.3 per cent in the default rate. However, the trend of high default rates later set in for in the 1988/1989 fiscal year it staggered at the incredible 91 per cent despite a contraction in credit growth of 55.6 per cent from the previous year's figure. The 1998/1999 increase in credit

Table 4
Bimas, Inmas and KUT Credit extension and default rate 1971/1972- 1999/2000[3],
(in Billions of Rupiah)

Fiscal Year	Credit Amount	Growth In credit (%)	Amount repaid	Amount defaulted (%)
1971/1972	9.81	--	9.5	3.2
1972/1973	15.2	55	14.5	4.6
1973/1974	36.5	140	33.6	7.9
1974/1975	53.1	45.2	48.4	8.8
1975/1976	72.3	36.2	64.9	10.2
1976/1977	71.3	-1.4	61.9	13.2
1977/1978	62.5	-12.3	52.8	15.5
1978/1979	60.3	-3.5	50.4	16.4
1979/1980	49.5	-17.9	42.6	14
1980/1981	50.1	1.2	40.8	19
1981/1982	59.8	19.4	43.2	28
1982/1983	81.7	36.6	57.3	30
1983/1984	33.6	-59	24.9	26
1984/1985	8.6	-74	7	18.6
1985/1986	9.6	11.6	8.8	8.3
1986/1987	13.1	36.4	11.8	9.9
1987/1988	74.8	471	40.3	46
1988/1989	33.2	-55.6	3	91
1995/1996	0.2075	--	0.1774	14.5
1996/1997	0.2294	10.6	0.1806	21.3
1997/1998	0.3746	63.3	0.3078	17.8
1998/1999	8.3621	2132	2.304	72.4
1999/2000	1.1879*	--	--	--

*up to September 2000 Source: Nota Keuangan and Ministry of Agriculture

disbursement amounting 2068.7 per cent of the previous year's figure created a default rate of 72.4 per cent compared to the 1997/1998 fiscal year rate of 17.8 per cent indicating an increase of 54.6 per cent. The tendency for constant revision and re-definition of the credit programs over time.

[3] Inmas credit was in place between 1977/1978 to 1979/1980 planting seasons; Bimas-KUD took effect between 1982/1983 to 1984/1985 planting seasons; from 1986/1986 Bimas took the shape of farm credit; October 2000/2001 farm credit was renamed Credit for food security KKP.

While Improved Bimas marked the mid and late 1970s, the early and mid 1980s saw the emergence of Bimas channeled through Village cooperative units KUDs. The late 1980s saw yet another effort at redefining directed credit program when Inmas and Bimas credit was transformed into farm credit *KUT* The concurrent running of two or more credit programs tailored towards the same sub sector. For instance between 1969/1970 until 1984/1985 *Bimas* was continued in its original form for some farmers while at the same time other farmers was covered by the Inmas, which was meant to be an improved version of Bimas or mass guidance credit was also in operation. As directed credit program is raised through government revenues, the amount disbursed is influenced by prospects of government revenue and policy inclination at the time. If for the 1978 devaluation policy meant to stimulate manufactured exports and by so doing avoiding the "Dutch disease syndrome", the effects of which had begun to be felt by the then low petroleum oil in 1978, registered a contraction in the growth of credit disbursed of –17.9 per cent from the previous year's amount . In a related development when financial reforms were set in motion on June 1, 1983, the effect on the growth rate of credit disbursement was to decrease by a massive –74 per cent. The picture isn't any different in 1988 when banking reforms meant to increase competitiveness resulted into a reduction in credit growth by –55.6 from the previous' figure.

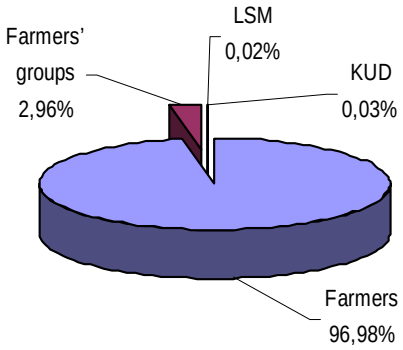
What possibly stands out an exception is the growth in farm credit in the 1998/1999 fiscal year by a staggering 2132 per cent from not so low growth rate in the previous year of 63.3 per cent. The bold move to increase credit disbursement was unfortunately met by the likewise phenomenal default rate to 72.4 from the previous year's modest rate of 17.4 per cent. It is apparent that the government no longer trusts the effectiveness of village cooperative groups as conduits of farm credit; that is if the September 2000 provisional statistics are anything to go by**.**

Even new entrants in the area of credit distribution, the nongovernmental organizations LSM aren't any better (see Figure 3). The statistics are revealing enough that 97 per cent and 3 per cent of data on disbursed credit by September 2000 had been entirely channeled by individual farmers and farmers groups respectively. This can explained by the tendency of the government to directly involve the farmers in

credit distribution. Poor directed credit design and implementation may be the root cause of much of the dysfunction in credit programs rather than the concept itself, and thus it is such areas that deserve revisiting, redesigning and rectification. Additionally, efforts should be geared towards encouraging group lending as by so doing social liability rather than individual responsibility for loans is brought to the fore. It is also advisable that not a single but a multiplicity of credit contracts should be made cater for the multiplicity of the farmer's needs to reduce credit fungibility (Besley and Coate, 1995; Hossain, 1988; Devereux and Fish, 1993). To reduce financial and operational risk, the government should include training in liquidity management for credit recipients as be part and parcel of all credit programs (Foster and Rosenzweig, 1996; Vanyan and Kraybill, 1994). To increase farmer's incentive to optimally use credit that is offered, the security of land on which the farm grows the crops should be ensured. The farmer who doesn't have land security may not put the credit to its full use as doing so may just increase the share that goes to the landlord, or increase the amount of tax he has to pay to the local government in line with efforts of local governments to maximize regional output and income.

For better results farm credit provision should be made in a package with the some technical component as an inseparable part of it. This calls for all institutions that deal in channeling farm credit to coordinate their efforts as well as ensuring that they have experts in farming practices, marketing skills, and micro budgeting and credit management. Extending credit should be done along with ample consideration of the inherent risk involved. This enables both farmer and lender to know each

Figure 3.
Various Channels of KUT Disbursements by September 2000



other's position from the very start. Not all bad loans are due to the farmer's misuse, rather due to the unavoidable natural disasters that adversely affect the produce over which nether farmer nor lender can exert control.

Moreover, the pursuit for areas covered and thus quantity of credit disbursed means that the quality of the credit preparation, monitoring, and collection mechanisms are jeopardized in the process. Quality as well as quantity of credit extended should be complementary guiding principles and not mutually exclusive. This calls into question the usual practice of linking the amount of credit disbursed in a given year to amounts received in the previous rounds, which inherently discriminates against new applicants as well as embedding danger of increasing the size lent each year regardless of the need and quality consideration of the product financed. It is worth noting that the risk of credit extended is inseparable from the risk faced by the farmer. Extending credit to farmers producing the same crop, and therefore liable to similar hazards might instead aggravate the situation by for example raising the capacity to produce more output at the same regulated price or even lower prices in free-market conditions. By producing more at the same time, all farmers enjoy lower purchasing power as a result of lower prices. Focusing on credit extension while other factors that influence the farmer's output such as market prospects, infrastructure capacity, off-farm activities and the level of technical know-how mastered by the farming community are ignored is merely scratching the surface of an intricate, interdependent yet unavoidable intricacy of relationships.

The fact that there is evidence of an association, however tenuous, between credit performance and the incidence of poverty in particular provinces unveils yet another intricacy to overcome before any measures to improve farm credit effectiveness takes effect. Unless, the farmer's basic needs are met, the tendency for farmer to consider credit as yet another addition to the family coffer will continue to affect such programs.

This calls for restructuring credit programs in such a way that not only the farmers' produce is taken care of in the package, but also the livelihood of his family as well. Paradoxically, the best way to improve credit performance is to increase incomes of credit recipients which can only

be done through growth and economic development, the long term goal of credit disbursement. Unfortunately, there are not many ways of increasing farmers' productivity without paying the cost for the means of achieving so. As is evident from the foregoing, increasing the quantity of credit without fundamentally overhauling the entire credit analysis, provision, monitoring, and collecting machinery is at the best wishful thinking. Merely adding volumes of credit into old bottles just postpones the eruption of an inevitable default volcano. Efforts at rationalizing the available credit programs into one program could do a lot in not only avoiding fungibility, but also toward efforts to ease control by improving evaluation effectiveness, supervision, and monitoring.

In as much as the level of economic activities in the targeted area influences credit program performance, any disruption of such activities is bound to have disastrous effects on the performance of such credit program. Aceh, Maluku, West Kalimantan, and Papua are vivid cases in point. Intensity of political instability reduced farm credit performance in the four provinces quite considerably. Times are gone when the government only caters for providing credit to finance production leaving marketing operations to farmers. Marketing the produce should be part and parcel of the credit program if high default rates are to be avoided. State enthusiasm in promoting production should be equally reflected in the search for market opportunities for the produce financed. The motivation of providing program credit should be revisited to consider the farmer's income prospects as the target rather than a mere by the way. With such orientation, doubtless, credit fungibility will be minimized.

Exploiting the existing social, economic, economic and cultural relationships within societies in designing credit packages appropriate for particular societies should improve program performance. Involvement of the civil society in credit programs will increase the sense of belonging to the program, and depending on the power arrangements within families and societies should provide information on who should assume ultimate responsibility for the credit. In patriarchal societies, it should be disastrous to consider the woman as the party responsible for credit repayment since power rests on the shoulder of the husband, any more than according such a task to the husband in a matriarchal society will be equally catastrophic. To increase the chances of credit repayment, social and

cultural ties should be exploited by transcending the family to the tribe whereby the chief is considered to be the enforcer of obligation to his sub ordinates. The ongoing revitalization of traditional kingships should thus provide opportunities for better credit program performance, if well managed.

The government should conduct some re-thinking of means of credit collection. Instead of emphasizing on the produce some incentives for prompt repayment should be put in place in form of easy refinancing next round for example or by reducing interest rate obligations. Some innovations such as inducing farmers to save by linking credit disbursal to amount saved in bank accounts should serve both as an indication of the seriousness of the farmer concerned, his frugality, as well as collateral for credit disbursed. Possibly it is also high time farmers are not considered similar in all respects, hence a case by case consideration of farmer's applications to reduce adverse incentives and moral hazard. The major challenge lies in making credit programs in compliance with regional and international arrangements such as AFTA, APEC, and WTO rules to which Indonesia has acceded. It is a tough juggling task, which requires a meticulous juggling master. After all the United states still protects its agriculture through such measures and even more, European union with its common agricultural policy does exactly the same, Japan and the republic of Korea heavily protect their rice economies, why shouldn't Indonesia?. It is never too late, protecting 210 million mouths from food insecurity should be the best and sound reason to continue farm credit even increasing the amount, if by so doing the world thin rice market will be shielded from price hikes that are very inevitable in the event Indonesia decides to import thousands of tones of rice.

Conclusion

The contribution of targeted credit programs has been substantial. Positive contributions made by credit programs include increased output arising from higher productivity, mechanization, infrastructure construction, and utilization of modern variety seeds. Directed farm credit has equipped farmers with the means to expand cultivable land thanks to the improvements in irrigation, and road infrastructure. The standard of living of many took a turn for the better as revenues from increased output

made it possible for more land improvement, more saving for the future, and for purchasing consumer products. Much of rural development in Indonesia is attributed to credit programs, which facilitated the construction of essential services such as bank branches, government offices, and institutions. Nonetheless, the most vital achievement was the increase in capacity for agriculture to provide sufficient food supplies for the entire population. The drawbacks of such programs encompassed the huge financial cost involved, distortion of the financial industry, and high credit delinquency. Yet with the achievements put in the proper perspective, there is no denying the fact that credit programs have been worth the cost, and should be continued with improvements in design and implementation.

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