Linkages and Rural Non-Farm Employment Creation:

Changing Challenges and Policies in Indonesia

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Stein Kristiansen

Department of Economics
School of Management
Agder University College, Norway
e-mail: Stein.Kristiansen@hia.no

Abstract

Increasing problems of rural unemployment in Indonesia are at the core of this report. Numbers of unemployed increased dramatically after the 1997 economic crisis and millions of people searched to be reabsorbed in rural labour markets. Agricultural land is scarce, however, and entry barriers are often high in non-farm businesses. Access to capital and information is limited for the rural poor and uneducated people. During successful periods of economic growth in Indonesia, various linkages in factor and commodity markets were created. Any return to the state-dominated economy and substantial government interventions in markets is unrealistic, but linkages may nevertheless be manipulated for political ends like employment creation. Policy instruments may still be applicable for reducing market failures and to facilitate commercial transactions in an economy characterised by disintegration and sectoral and geographical disconnection. This paper aims to assess experiences from former linkage strategies for rural non-farm employment creation and to point at new policies suitable in various and changing economic, political and cultural contexts of Indonesia. A conclusion is that linkages and rural employment creation strategies should aim towards mobilising the variety of local natural and cultural resources and encourage horizontal communication and economic transactions between regions and peoples.

Key Words: unemployment, linkages, entry barriers, Indonesia

JEL: *O13; O18; Q18*

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1. Introduction

Problems of unemployment in Indonesia increased dramatically after the 1997 economic crisis. Millions of people searched to be reabsorbed in rural labour markets. Agricultural land is limited in the most populous parts of the country and non-farm rural employment has gained renewed importance and academic and political interest. Entry barriers are often high, however, and access to capital and information is limited for rural poor and uneducated people. Unemployment has triggered criminality, violence and social conflicts, which again contribute to increase transaction costs in rural businesses. The central government has lost much power and credibility, and older policy instruments are not pertinent in the new environment of free markets and regional autonomy.

Recently, increasing awareness is raised towards market failures and the limited success of economic liberalisation in lagging areas of poor countries. Economic actors do not behave the way they are expected to, poor people get poorer and social and regional differences increase. From various parts of the developing world we see that especially the rural population show weak supply responses to allegedly favourable market incentives. Deregulation policies tend to increase levels of inequality in society and poverty of smallholders in poor areas (Reardon and Barrett 2000, Obare et al. 2003). In Latin America, rural poverty is found to affect more people in many countries and to be considerably deeper than urban poverty (de Janvry and Sadoulet 2000). Sahn and Stifel (2003) reported from Africa that development results are particularly sobering for rural areas, where living standards are universally lower, and where rates of progress lag behind urban areas. Similar findings are also made in Asia (Warr 2000).

During successful periods of economic growth in Indonesia, various linkages in factor and commodity markets were created by subsidies, price manipulations and enforced contracts. Any return to the state-dominated economy and substantial government interventions in markets is unrealistic, but linkages may nevertheless be manipulated for political ends like employment creation. Policy instruments may still be applicable for reducing market failures and to facilitate commercial transactions in an economy characterised by disintegration and sectoral and geographical disconnection. Commercialisation and liberalisation normally mean withdrawal of labour from the agricultural sector (Pingali and Rosegrant 1995), and labour surplus from rural areas should ideally form a growth input in the formation of modern manufacturing and service industries (Mellor 1995). The continuous economic crisis and growing population challenge these assumptions in the present Indonesian context. An abundance of millions of labourers in rural areas need assistance to find employment and make an income. Given the steady long-term decline in raw agricultural commodity prices, it is also not to wonder why researchers increasingly advocate stimulating rural value-added in agribusiness and other non-farm economic activities for livelihood security and improved living standards (Reardon and Barrett 2000, Ellis 2000).

Most use of the linkage term in economic development discussion is related to some sort of government intervention to facilitate or strengthen commercial transactions between firms, sectors or geographical areas. This paper aims to discuss experiences from former linkage strategies for rural non-farm employment creation and to point at new policies suitable in various and changing economic, political and cultural contexts of Indonesia. The report is mainly based on literature surveys but information is also gathered from interviews in Indonesia with government officers at central, provincial and district levels. A number of

fieldwork sessions have also contributed to an understanding of the growing problems of rural unemployment and measures that could be taken. The analysis is the result of research conducted by the author on small-scale rural enterprise development for several years. Recent research by the author also includes impacts of political-administrative changes and regional autonomy on the supply of public services like education, health and security. All recent research in Indonesia falls under the institutional collaboration agreement between Agder University College and Gadjah Mada University, which has been funded by the Norwegian Ministry of Foreign Affairs and NORAD since 1999. The writing of this report is rendered possible by a visiting scholar assignment with FAO's Agricultural and Development Economics Division in Rome, March-May 2003.

The paper is organised as follows. This introduction is followed by a presentation of the backdrop of Indonesian economic growth, crisis and social unrest. The third section is a discussion of the present free market policy and the ongoing process of decentralisation and regional autonomy. The aim of these two sections is to create an understanding of the macro economic and political context for change in the country. Section four presents an overview of rural non-farm businesses in developing economies and challenges of high transaction costs and entry barriers, among others. Empirical findings are collected from Asia, Africa and Latin America, but a focus is set on the role of small-scale enterprises in rural areas of Indonesia. A more thorough discussion of linkage strategies follows in section five. This is mainly a theoretical discussion, starting with an overview of the importance of the growth linkage model in post-war development planning and continuing with efforts to clarify various meanings of the linkage concept. Section six offers an outline of previous experiences from Indonesian central government policies for linkages and rural employment creation. A large number of programmes have been initiated and carried out by various ministries, often with support from foreign donors. A total overview is difficult to gain, not least because borders between programmes are unclear, programmes change names when they loose recognition, and the ministries do not keep records of all programmes in all provinces. A selection is made based on relevance of the programmes and availability of literature and assessments. From lessons learned, we turn to a discussion of possible new policy instruments, realising that both the state and the markets have failures. An overview is presented of current programmes that fall under the responsibility of three ministries. They all aim for rural non-farm employment creation and they are not very different from earlier policy portfolios under the same ministries. New policy instruments are proposed, focusing on social networks and social capital formation. Improved general education and information flows are at the core of our proposed policies. Finally, a concluding section also presents some prospects for further research.

2. Indonesia from growth to crisis and social unrest

The present problems of rural unemployment and social dissatisfaction in Indonesia can not be understood without some historical perspectives on an amazing previous economic development process. The country saw a steady and remarkably high rate of economic growth after Suharto took power and the era of the New Order was initiated in 1965. Growth in income per capita averaged 4.5% per annum between 1965 and 1990. In the oil boom years of 1974-1981 the GDP growth reached an average annual rate of 7.7% (Hill 1996a). Manufacturing industry expansion reached peaks between 1968 and 1977, in a period of protection and extensive state regulations. Agricultural growth has been slower but the sector played a leading role in providing employment to the increasing and poorly educated labour

power. The country also managed to became self-sufficient in rice in the mid 1980s, and farm exports of commodities like spices, cocoa, coffee and palm oil expanded rapidly. Hill (1996a) explains agricultural growth by two main sets of factors. Firstly, a strong government commitment, for instance by large input subsidies and infrastructure development was of crucial importance. Secondly, a favourable external environments, and specifically technological advances in rice production, has pushed out production frontiers.

The intensity of government intervention in the economy in general reached its peak in the early 1980s. According to Hill (1992), these policies for many years after obstructed the development of an efficient and outward-looking manufacturing sector. However, mostly large-scale and urban-based enterprises were favoured by government interventions and import substitution policies. The ascendancy of the *conglomerates* in many sectors allowed for little participation and substantial competitive disadvantages for rural and small-scale competitors (Mubyarto 1996).

The 'technologists' played an important role in economic policy making, especially after the increasing oil incomes from 1974. The schools of economic nationalists and interventionists (Mackie and MackIntyre 1994) are characterised by a reservation about the free market ideology, distrust in foreign capital, and a belief in the infant industry argument, supporting and protecting emerging domestic industries. In the mid-1980s, the economic policy pendulum started to move in the direction of the economic liberals, the 'technocrats'. The reduction of oil export income induced limited economic growth and rapidly rising current account deficits. According to Hill (1994), the economic liberalisation really started in 1987 with continued fiscal austerity, effective exchange rate management and decisive microeconomic reforms. Policy changes included a shift from tightly-protected to market-based agricultural and industrial development. The selected adjustment package in the 1980s was successful in restoring equilibrium, and income distribution in the country was improved according to official statistics (Thorbecke 1991). Exchange rate adjustment had a significant impact on exports, especially from the manufacturing sector, while food imports actually rose through the deregulation period. Fertiliser subsidies were large through the 1980s, and Rosegrant et al. (1998) argued that an alternative reinvestment of fiscal savings from fertiliser subsidies in research, extension and irrigation would produce large benefits for agricultural production. Subsidies to the agricultural sector were in general gradually reduced, actually almost halved until the early 1990s (Tambunan 1998). Import duties and taxes on export were also cut down on most agricultural commodities.

It is generally agreed that policy adjustments were consistent from a macroeconomic management point of view (Usui 1996). Through the 1990s, Indonesia went through most of the steps and procedures normally prescribed in a structural reform package: prices being determined by markets, privatisation, reduced government spending, and institutional reforms. The government generally maintained macroeconomic stability, got prices right, provided public goods and left growth to the private sector (Rock 1999). However, reforms focused on the financial sector while resistance was stiff to real sector reform by the inner circle of the political and economic elite. Through the 1990s, new monopolies were granted to the Suharto family members and their cronies. Examples are found in car imports, toll roads, and numerous other ventures, accompanying previously established monopolies in cloves, transport and other sectors. As stated by one observer: 'Indeed, after 1993, there was a near reversal of the liberalization', and that was due to the widespread nepotism and expansion of oligopoly power (Cassing 2000: 165).

The Indonesian New Order government generally encouraged inflow of foreign capital, but capital flow liberalisation really started around 1990. The value of net foreign direct investment increased from 1 billion USD in 1990 to 6.2 billion in 1996 (Bank Indonesia 1999). The increase has mostly been regarded positively, because foreign capital contributed substantially to economic growth at the national level. Increased volatility, however, also rendered capital flows to be a negative shock to Indonesia, due to a vulnerable banking sector and lack of legal regulations (Woo 2000). Actually, the capital flow liberalisation without accommodating institutional development contributed substantially both to the further growth of the *conglomerates* at the sacrifice of small enterprise development, and to the severity of the up-coming crisis.

The Asian crisis hit Indonesia hard. The national currency, the rupiah lost some 85% of its value in a few months after July 1997. Inflation reached close to 80% in 1998, compared to 6.5% and 11.1% during 1996 and 1997. Food prices rose by 133% from 1997 to 1999 (Booth 2000: 148), while wages were falling (Manning 2000). Estimates indicate that around 8 million additional people fell below the poverty line from 1997 to 1999 (Warr 2000). Interest rates increased seven-fold and there was a real GDP contraction by 13.2% during 1998. The value of investments fell sharply, - total investment as the percentage of GNP shrunk from 33.4 % in 1996/97 to 13.6 % in 1998/99. Savings ratios fell similarly from 30% to 10%. In the foreign capital accounts, a net inflow of capital amounting to 13.5 billion USD in the financial year 1996/97 turned to annual outflow of more than 10 billion USD in 1997/98 and 1998/99. The collapse in domestic banking caused local credits to dry up. The value of exports from the agricultural sector increased by 16.6 % in 1998, while industrial exports were reduced by 1.1%.

ILO calculated that 5.4 million workers were displaced as an impact of the crisis only in 1998 and that the number of unemployed reached 18 million or around 20% of the workforce (ILO 1998). The National Planning Agency estimated an unemployment rate at 30% in 1999 (BAPPENAS 1999). Official statistics also reveal that more than 18 million people worked without salary in the year 2000, an increase of 3 million from 1997. Agricultural employment increased by 13.3% from 1997 to 1998 (Hugo 2000: 124) and the sector swelled by 6 million workers, without a measurable increase in agricultural output. Towards the end of 2001, the Minister of Manpower formally unveiled an unemployment figure of 40 million (Jakarta Post 22.12. 2001). ILO calculates that the national economic growth should be above 5% annually for the economy to be able to absorb only the net population growth, close to three million people. A present GDP growth rate at 3% adds another million or so young people annually to the rows of unemployed with the present average capital/labour ratio. The government made efforts to whisk the unemployed off to the countryside as quickly as possible in order to curtail the rising political tensions in urban areas (Silvey and Elmhirst 2003).

Following the financial crisis and the devalued rupiah, 1998 and 1999 were prospering years for exporters of some small-holder crops, especially cocoa, coffee, and spices. Palm oil is another example of a commodity gaining from increasing local prices on export products, while large plantation owners were the main beneficiaries in that case (Gerard and Ruf 2001). Small-holders producing palm oil mainly sold their product to the plantation nucleus. Gains for rubber holders, a dominant rural undertaking especially in Sumatra, were dampened by falling international prices. For producers of basic subsistence crops like rice, corn and soybeans, the post-1997 period has been less successful. These crops have suffered from drought, and an upward pressure on prices has been more than compensated by increased input prices, for instance on fertiliser and pesticides. From field research comprising more

than 1.000 small farm households outside of Java, Sunderlin et al. (2001) concluded that most farmers perceived themselves as worse off after the crisis and that there is a great need for alternative employment and income generation.

The share of agriculture in total employment remains high, around 45% (BPS 2003). In spite of a steady growth in agricultural value-added, Tambunan (1998) argued that the sector has been curbed due to under-investment and lack of technological development. In spite of rapid urbanisation, 65% of Indonesian households still live in what is classified as rural areas, while only 46% of them get their sole income from agriculture (Booth 2002). Especially in the period from 1990 to 1998, rural small-scale industries were in many ways disfavoured compared to the large-scale businesses. The value of credits available through different micro-credit schemes was reduced, while interest rates increased through the deregulation policy period. High transaction costs is one reason for interest rates well above 40% in the mid-1990s, while larger companies in the formal sector of the economy had access to credits at international rates and even far below. The large-scale enterprises also had superior access to information, raw materials, technology and markets, thereby avoiding the creation of 'a level playing field' in domestic competition.

The economic crisis and increased rates of unemployment spurred criminality, violence and social unrest in society. Vertical violence and human rights violations continue, especially in the troubled provinces of Aceh and Papua, while an increase in horizontal violence may be regarded even more alarming. Theft and destruction of common people's property, and ordinary people being threatened, tortured and executed by their peers have become common phenomena in urban and rural areas all over the country. Especially problems of violent youth groups have escalated (Kristiansen 2003a), following unemployment and broken expectations. Religion in some cases is used to legitimise violence and fighting between groups, villages and regions. A weakening of Indonesian state institutions, like the police and the judiciary, creates a condition conducive to the rise of social conflicts and violent actions. Problems of unemployment need to be regarded and addressed also from this social perspective.

3. The new context of free markets, democracy and regional autonomy

Indonesia's economy remains hobbled by the effects of the 1997-98 recessions, and dependency on international donors and lending agencies has amplified. In exchange for huge financial bale-out packages, Indonesia has repeated its pledges to continue the development towards macro-economic stability, global free markets and liberal democracy. The crisis triggered broad economic, legal and administrative reforms. Major political changes followed President Suharto's resignation in May 1998, and a strong spirit of democracy facilitated a successful general election in June 1999. On the economic policy arena, the crisis led to a further strengthening of market liberalisation. The government is forced to save, and thereby to resist the earlier efforts to protect non-competitive industries and monopolies. The official policy tells there should be a fair process of entry and exit in business, stated to be critical to economic recovery and industrial growth (BAPPENAS 1999). On the output side, the sectors leading in the economic recovery process seem to be consumer-related industries and industries with high local value-added and export potentials, e.g. agriculture, fisheries and mining. International competitiveness has generally been improved by the exchange rate adjustments.

In the commodity markets, tariffs are gradually reduced, following agreements with the WTO, and more specifically with the ASEAN Free Trade Area (AFTA) since 1992. The goal is to reach a complete free trade zone within the six original ASEAN countries and AFTA signatories in 2003 (by 2006 for Vietnam, 2008 for Laos and Myanmar and 2010 for Cambodia). Approximately 90% of traded items now keep tariffs between 0 and 5% for the ASEAN area. Among the countries with which Indonesia might soon choose to build bilateral free trade relations, is low-cost China. Generally, the continued trade liberalisation increases competition and the need for adjustments and information flows, creating great challenges not least for labour-intensive small-scale and cottage industries in rural areas of Indonesia. Fear of free trade is strongly expressed and business people and politicians are worried that free competition will force increasing numbers of companies out of business. A new wave of economic nationalism may emerge and a formal break with the IMF seems to be impending. The pendulum might be swinging away from global market liberalism, but should, according to laws of dialectics rather than gravity, turn in a different direction than nationalistic and interventionist import substitution policies.

It is generally recognised that a sustainable national development needs entrepreneurs, also in rural areas, who are creative, innovative, and ready to take calculated risks based on competence and information. There is an alarming level of information asymmetry between economic actors, however, and the government warns against the related moral hazards (BAPPENAS 1999: 75). The government emphasises market friendly policies that foster healthy competition, while official policy statements also underline the role of continued human resource development and the strengthening of institutions that can improve flows of information and knowledge.

The fall of Suharto and the political reforms following the open, general election in 1999 created a more open society. Information is in circulation, there is freedom of expression, and the media has developed a remarkably open and critical attitude. There is still a strong commitment to the process of democratic reforms. This was clearly evidenced by the general election of 1999 and the mobilising of multiparty competition for political power. The process of democratisation is at risk, however, especially by the ongoing economic hardship and the widespread sectarian and social violence. Strong centrifugal tensions have for long challenged unity and territorial integrity in the extreme heterogeneity of the Indonesian population. During the Suharto presidency, issues relating to SARA (*Suku* (ethnicity), *Agama* (religion), *Ras* (race), and *Antar Golongan* (class)) were banned from open discussions, while today each of them represents problems that have to be faced in a transparent society with political competition. The combined process of weakening the military's political power, working toward democratic governance, and decentralising the state administrative structure is certainly a difficult task.

Two new laws, Law 22/1999 on political and administrative decentralisation and Law 25/1999 on fiscal decentralisation, were implemented from January 2001. This started a giant political and administrative reform leading to a high degree of regional autonomy. Great political power and economic responsibility were placed on the third level of the previous centralised six-layer administrative system, on the districts (*kacamatan* (rural) and *kota* (urban)). Some say that the impact of the 'Big Bang' approach to decentralisation is a loss of government control of economic spending and political development (Indrawati 2002). Others regard the reform towards federalism as a golden opportunity for diversity to be maintained and the only way 'to avert the growing threat of national disintegration' (EIU 2000).

There are currently 30 provinces and 420 districts in the administrative system. The districts will now remain with a substantial share of incomes from natural resource extraction, in addition to transfer of a quarter of central-government revenues. The districts' share of total government expenditure has more than tripled over the last two years. The districts are given the responsibility for all government matters except in five areas, which are foreign affairs, defence and security, justice, monetary and fiscal affairs, and religion. In other words, areas like agriculture, education, health, public works, transport, industry and trade, investment and environment are now under district authority. Decentralisation of government also means decentralisation of corruption. Bribery and collusion are transferred to regional government officials, supported by local politicians seeking to gain as much as possible while in position (Jakarta Post 8.4.2003).

Decentralised services can be more efficient if better adjusted to the specific needs of people in the localities they are offered. Welfare could be enhanced because residents in different jurisdictions could choose the mix of public activities that best matches their preferences (Smoke 2002). However, the districts face enormous challenges in the improvement of institutions and human resources, while they are mostly inexperienced in self-governing and confronted with the lack of guidelines and operational procedures from the central government. The reform comes with the threat of increased regional differences and related geographical and social tensions. District revenues per capita varied from 45,000 rupiah to 8 million rupiah in 2002.[1] Poor regions will hardly be able to meet basic requirements to human resource development, like supply of elementary health and education services. The reform also implies more local responsibility for income generation, a potential threat to both businesses and natural environments. Lessons from decentralisation of political and administrative power in other poor countries tell that local authorities, in their eagerness to improve the financial situation, have hindered potential entrepreneurship to unfold by increased taxes and fees (Havnevik et al. 2003: 35).

4. Rural non-farm business

Based on Barrett, Reardon and Webb (2001), Lanjouw and Lanjouw (2000) and Haggblade et al. (1989), we define rural non-farm businesses as all income-generating activities except crop and livestock production and fishing and hunting, located in areas that are mainly servicing agricultural activities. It is not in any sense a homogeneous sector. Rural areas may include villages and smaller towns, without a specific population limit. Rural non-farm businesses are typically small-scale (less than 50 employees) and often operate in the informal sector of the economy. They can often be categorised as 'cottage industries' with only a few employees, performed in simple premises with limited capital input. Typical sectors comprise agribusiness, carpentry, tailoring, basket and mat making, and pottery, while also service sectors like transport, hairdressing, healing and 'secretarial service' are included. Agribusiness is of special importance as regards rural non-farm business and linkage creation. It comprises all operations involved in the manufacture and distribution of farm supplies, production activities on the farm, and the storage, processing and distribution of farm commodities and the items made from them. Kariala (2000) points to the potential increased role of agribusiness development in Indonesia, due to its preferably rural location and its high multiplier effects through farming activities, input delivery, post-harvest and processing businesses, marketing and infrastructure development.

[1] Figures calculated from data from the Ministry of Finance and Badan Pusat Statistik (Central Bureau of Statistics).

The rural non-farm sector is often regarded as low-productivity, making low quality goods and expected to wither away as a country develops (Lanjouw and Lanjouw 2000). Cottage industries in rural areas of Indonesia can easily be distinguished from urban, modern manufacturing or service industries, not only by scale but also by a series of other variables. Capital to labour ratio is lower, technological flexibility is higher and so also is the ability to absorb labour if salaries are low. Salaries are normally low in the sector, reflecting low productivity (Kristiansen 1999). Products are not necessarily of low quality, but often fit for local markets based on traditional tastes and preferences and low purchasing power. Capital investments are normally low and founded on private savings, and we often find the company owners and entrepreneurs to be as much concerned with neighbourhood harmony and traditions as with profit maximisation. The business owners are mostly without higher education. Competence and skills in professional management, marketing and accounting are normally non-existent or at a very basic level. The small-scale entrepreneurs also normally have limited access to information on markets, new technology and development trends in product design and consumer preferences at the national and international levels. Innovative capacity is thereby limited (Kristiansen 2003b). Ananda (1998) found that most non-farm enterprises in the study area in Kalimantan, Indonesia, are family owned and managed and characterised by conservative attitudes, low education, and risk aversion. The strategy of the enterprises is often one of survival, not growth. Innovative behaviour consists mainly in imitating foreign technology and successful pioneers. Typical rural activities in general also have low social status, and educated entrepreneurs and labour power tend to search for alternative activities and locations.

Recent years have seen increased awareness of the role of the rural non-farm sector in economic development, employment creation, poverty reduction, and in maintaining cultural and social values. Various economic reasons can be found in studies of rural areas why individual households should diversify stakes and incomes on non-farm businesses: seasonal variations, diminishing returns to productive assets, missing or incomplete agricultural markets, ‘economies of scope’, and risk reduction. Economies of scope, contrasting economies of scale, exist when the same inputs generate greater per-unit profits when spread across multiple outputs than dedicated to any one output. Ellis (2000) concluded that under the precarious conditions that characterise rural survival in many low income countries, diversification has positive attributes for livelihood security and is increasingly important. Reardon et al. (2001) found that rural non-farm incomes average 40% of rural incomes in Latin American countries, and Reardon (1997) summarised studies indicating comparable shares in countries in Sub-Saharan Africa between 15% and 93%. According to Davis et al. (2002), non-farm income currently contribute 42%, 40% and 32% of rural household income in Africa, Latin America and Asia respectively

In Indonesia, little attention was given to rural non-farm employment through most of the 1990s, mainly because the high economic growth rate obtained through outward-looking industrialisation absorbed most labour excess. This happened especially in urban export processing zones and created a substantial rural - urban migration. After the crisis, however, the significance of rural non-farm economic activities has received renewed attention for its potentials to stabilise household incomes of the rural poor (Kusago 2002, Tambunan 2000a). Small-scale industries in Indonesia provide more than 65% of total manufacturing employment, mostly in rural areas. Hill (2001) listed reasons why increased attention is drawn to small-scale enterprises in the country, and dominant are their significant contribution to employment creation and their better performance during the crisis compared to larger-scale

enterprises. Evidence from the 1983 and 1993 Indonesian Agricultural Censuses indicated that the growth of off-farm income (which also includes agricultural income on others property) of agricultural households was 24% faster than the growth in income from the agricultural holdings. Off-farm income accounted for 50% of total incomes of agricultural households in 1993 (Booth 2002). The figure has probably increased after re-absorption of millions of labourers in agriculture, which has happened without measurable output increase for major agricultural commodities.

Rietveld (1986) showed that income from non-farm activities has traditionally been much more important for the land-less and small-scale farmers than for large-scale landholders in Indonesia. Low-income non-farm activities have in many cases been a survival strategy for the poor and compensated for a lack of agricultural income opportunities. Especially in the rural Java, characterised by high population density and land scarcity, poor households have for long been forced to seek income outside agriculture to make ends meet (Effendi and Manning 1994). There is a negative correlation between farm size and non-farm activities in these areas. Labour absorption capacity of agriculture is relatively low and escalating land scarcity creates growing need for non-farm employment (Evers 1991, Nibbering and Schrevel 1982). Both White and Wiradi (1989) (from Java) and Meindertsma (1997) (from Lombok) conclude, however, that equalising effects on the rural income distribution from off- or non-farm employment tend to be negligible. The more wealthy households formed a more dynamic strategy of accumulation and they dominated in the higher-paid off-farm employment opportunities. The impact of the non-farm sector on income inequality is far from uniform across regions and countries, however (Reardon et al. 2000). From India, Ravaillon and Datt (1999) found that initial regional conditions, especially the level of education, determined the extent to which non-farm economic activities were poverty reducing in various states.

Several authors have documented how surpluses earned from application of improved rice-growing technology in Indonesia in the 1970s were reinvested in profitable non-farm activities, for instance in transport and trade (Effendi and Manning 1994, Husken 1979, 1989). Other studies have suggested, however, that the main stimulus to rural incomes came from urban rather than rural work and that linkages between farm and non-farm activities were relatively week (Manning 1987). Based on fieldwork in West Java in the mid-1980s, Mizuno (1996) portrayed rural manufacturing more as a fairly effective means of local economic survival than as a basis for modernisation and advancement, and incomes from non-farm work in that area tend to be very low (Alexander et al. 1991).

A relatively recent World Bank survey of rural non-farm employment (Lanjouw and Lanjouw 1995: 1) opens with the following statement: ‘The rural non-farm sector is a poorly understood component of the rural economy ...’. From several studies of the sector, however, some main problems can be identified. Related to discussions of the role of small-scale non-farm businesses in development strategies, the following four problems stand out: entry barriers, transaction costs, low technological efficiency and entrepreneurial drive, and a related lack of competitive strength.

Previous empirical findings from Africa indicate that *entry barriers* can be high and blocking in the non-farm labour markets as well as in more advanced farm activities. This is due to requirements of investments, information and skills, and various acquisition and license fees (Woldenhanna and Oskam, 2001, Barrett, Bezuneh and Aboud 2001, Abdulai and Rees 2001). The same tendencies are found in Latin America (Corral and Reardon 2001) and

'institutionalizing barriers to entry' is also reported from Asia (Goletti and Chabot 2000). In Mali, Abdulai and Rees (2001) found that lack of household resources and education could hinder poor farmers from diversifying. Differential access to the high-return cash cropping and non-cropping activities appear to be driving the differences in marginal utilities across households at this location. Similarly from Côte d'Ivoire, Barrett et al. (2001) found that households with poor endowments were less able to respond to attractive emerging on-farm and non-farm opportunities due to entry barriers. Pomp and Burger (1995) showed how limited information leads Indonesian farmers to copy adoption decisions of other farmers, and most farmers tend to avoid adoptions that have not proved successful in their vicinity. Limited information on business alternatives impedes a shift into trades with higher profitability. Also in rural Nicaragua, Corral and Reardon (2001) found that high entry barriers in profitable non-traditional businesses led to a geographic and socio-economic concentration of such activities to areas with denser infrastructure and to households with higher incomes and levels of education. Reardon (1997), studying the rural non-farm labour market in Africa, concluded that there is a poor distribution of non-farm earnings due to significant entry barriers and market segmentation. The richer households, with more land and more education, are better equipped to assign a member to high-wage non-farm employment. From Indonesia, Booth (2002a: 196) reported that mainly the more affluent households can afford to keep their children in school long enough to gain the entry-level qualifications needed for better paid non-farm employment. Households located in areas equipped with road and electricity access are also generally better fit for setting up non-farm production and finding market outlet (Reardon et al. 2001). Policy programmes are advised to aim towards lowering entry barriers to non-farm employment and to develop the capacity of households to respond to market incentives (Reardon et al. 2001: 406).

According to Pejovich (1995), *transaction costs* are the costs of all resources required to transfer property rights from one economic agent to another. They include the costs of making an exchange, discovering exchange opportunities, negotiating exchange, monitoring and enforcement, and the cost of maintaining and protecting the institutional structure. Fafchamps (1992) found that the major determinants of the scale of transaction costs in rural areas of developing economies include the quality of the physical and facilitating marketing infrastructure, as well as market information. From her studies of rural clusters in Indonesia, Weiland (1999) concluded that attracting traders to the clustered enterprises was crucial for the achievement of transaction cost reductions and social capital development. Co-operative selling institutions are potential catalysts for lower transaction costs, and Reardon and Barrett (2000) believe that village-level co-operatives are resurgent, after a long period of disfavour due to corruption and inefficiency.

There is a tendency that small-scale enterprises in remote rural areas are engaged in production of traditional, low-valued goods with low or negative income elasticity. Economic theorising within neo-classical economics on the growth of the non-farm sector was pioneered by Hymer and Resnick (1969). The major proposition in their paradigm was that non-agricultural rural production ('Z-goods') would decline as the economy grows. Non-farm occupations were regarded as residual activities in rural areas. The critical assumption was that products from rural cottage industries would be based on *traditional technology* and of an inferior quality compared with goods produced in the modern sector of urban areas. Some empirical studies have provided other results, however. Oshima (1984), for instance, showed that non-farm incomes in Japan, Korea and Taiwan experienced substantial increases in both levels and shares as these countries moved through various stages of development. Angeles-Reyes (1994) reported on substantial positive linkage effects in the Philippines between

agriculture and rural non-farm activities. The non-farm sector was predominantly stimulated by local consumption linkages. Ranis and Stewart (1993), studying Taiwan and the Philippines, found the tendency to a rise of certain 'modern' rural non-farm goods manufactured by more advanced production methods, using more human and financial capital. A stimulating demand for such activities was mainly found in urban areas or export markets that were made accessible by improved infrastructure. Also, a more dynamic and diversified local production and consumption structure tends to create additional linkage effects, compared with areas mainly based on semi-subsistence agriculture.

Several studies of small-scale industries in rural areas of Indonesia identify problems with *competitive strength* that are related to the lack of knowledge in technological and managerial fields as well as in marketing. Enterprises in the sector also suffer from poor access to formal financial sources and insufficient entrepreneurial skills. Limited human and financial capital hinders the acquisition of technology and the development of markets and financial arrangements (Mizuno 1996, Pangestu 1996, Tambunan 2000b, Urta 2000, van Diermen 1997). According to Berry (1997), the above limitations make collaboration with larger-scale and centrally located enterprises generally important for the development of small-scale rural non-farm businesses. Collaboration can be in the form of linkages and subcontracting arrangements.

To strengthen the entrepreneurial drive and competitive strength of small-scale, rural, non-farm enterprises there is a need to develop strategies for increasing economies of scale with respect to production, management, marketing and distribution. This could be achieved through linkage and collaboration arrangements, in spite of the smallness of enterprises. Technical and managerial knowledge would also need to be enhanced, and access to supporting infrastructure and services and to sources of capital should be improved. Ananda (1998) found that the supply of raw materials was a major problem in 80% of the studied enterprises in Kalimantan. The problems were related to scarcity and irregular supply and unforeseeable price fluctuations. There were also high transaction costs for the small-scale agribusiness producers due to the high time consumption in finding buyers to small quantities of products. There is currently an absence of marketing centres and systems, and urban-based traders tend to monopolise the markets. All problems call for improved linkages. Both from West Java, Van Velzen (1988) concluded that marketing networks are essential for the success of food processing industries and White (1991) found that footwear enterprises needed linkages and sub-contracting between artisans, workshops and larger-scale enterprises.

5. Theories and strategies on linkages in rural development

The linkage term has been used in various ways in economic development theory and it needs clarification for analytical purposes. Most economic linkages are primarily financial transactions, simply normal sale and purchase of goods, services and factors of production. Demand stimulates supply and vice versa, and thus expansion in one production sector or market segment creates multiplier effects in the economy. Most use of the linkage term in economic growth discussion, however, is related to some sort of government intervention to facilitate or strengthen commercial transactions between firms, sectors or geographical areas. Linkage *creation* strategies were especially popular in developing countries in the 1970s and 1980s, before the expansion of structural adjustment programmes, market liberalisation policies and free market ideology.

The linkage term first came into use in economic growth theories by the works of Perroux (1955, 1959) and Hirschman (1958). Perroux' main idea was the strategy of establishing propelling industries and a 'structured space', meaning a concentration of dynamic activities in regional growth poles, which triggers development in other sectors and regions in a spatial system of linkages and trading networks. A 'real investment which stimulates others by evoking complementarity' is at the core of the strategy (Perroux 1983: 100). Hirschman (1958: 98-119) developed the concept of 'inter-industry linkages', making a distinction between 'backward linkage effects' arising from the inputs needed to supply production in the industry in question, and 'forward linkage effects', arising from the utilisation of the output of the industry as inputs in new activities. Linkage effects were regarded as investment-generating forces set in motion through input-output relations (Hirschman 1977). Using the input-output term, Hirschman also pointed back to the early work of Leontief (1951), which represents a theoretical basis for many empirical studies of multiplier effects. Chain effects would provide the momentum to the growth process of the economy based on unbalances at strategic points of the economy, according to Hirschman (1958). Bottlenecks in the economic development process are created more by the lack of entrepreneurial ability and action than by the limited availability of capital. Government planning and intervention in linkage creations, based on a qualified identification of crucial sectors and channels, would create incentives and pressures for entrepreneurial endeavour and efficient resource allocation. Referring to Linder (1967) and Hymer and Resnick (1969), Hirshman recognised that consumption linkages could also be negative, for instance through the destruction of established handicraft and artisan activities with increasing income. This negative impact corresponds to Myrdal's (1957) 'backwash effects', typically found to be dominating in times of economic recession.

Hirschman (1977: 80) has also contributed to confusions arising from an unclear definition of linkages and a blurred distinction between linkages and their effects. He defined a linkage as 'the record of how one thing leads to another', and he further explained that a linkage exists when ongoing activities 'invite some operators to take up new activities'. He equalised forward and backward linkages with 'intimate ties to a dense network of traders and townspeople', thus bringing in social networks in the linkage concept (Hirschman 1977: 74).

The growth linkages model represented a leading paradigm in policy discussions of rural non-farm employment creation from the mid-1970s (Ellis 1998). According to Hansen et al. (1990), no other post-war regional development theory, apart from the neo-classical laissez-faire ideology, has been more influential than that concerning spatial growth poles and linkage creation. It was firstly used in the work of influential writers on rural development such as Johnston and Kilby (1975) and Mellor (1976) and later applied to studies of rural growth and employment creation in Asia, Africa and Latin America. In Malaysia in the 1970s, regional planning was quite successfully based on growth pole ideas and the concept of spatial interaction through linkages. 'Transmission lines' were created by government intervention to channel development effects in desired directions, geographically and socially, instead of leaving all to the free market mechanisms (Hansen et al. 1990: 226). In India, Mellor and Lele (1972) regarded the green revolution as an external shock supplying speed to chains of growth. Increased agricultural productivity and rural income would create linkages to the rural non-farm sector as well as to urban sectors. Both forward and backward production linkages and consumption linkages were thought to be important. In addition, there would be potential factor linkages through the supply of labour and capital. Growth in various sectors would be mutually reinforcing with employment and incomes increasing in a dispersed pattern.

According to Hazell and Roell (1983), linkages between agricultural, on-farm activities and off- or non-farm businesses may occur in two ways; either by consumption linkages or through production linkages, which may be forward or backward. In their path-breaking review of studies of farm - non-farm linkages in Africa, Haggblade et al. (1989: 1184) were more precise but still ambiguous in their use of the linkage concept. They made a distinction between factor and product market linkages. Factor linkages involve capital and labour flows between sectors, while 'product markets include backward production linkages from agriculture to rural input suppliers, forward production linkages from agriculture to processors and distributors, and consumer demand linkages generated as a result of increasing farm income.' Production and consumption linkages are thus equal to an aggregate set of market transactions. Capital linkages may be in the form of taxation or non-market pricing mechanisms for commodities. Labour factor linkages were simply regarded as flows of labourers between sectors.

Jansson (1982: 4), in his work on inter-firm linkages in India, made a distinction between linkages as relations and as transactions. A transaction is a separate exchange of a product, a service or information, while a relation is understood as the framework within which transactions occur and which influence and is influenced by individual transactions. Leonard and Marchall (1982: 114), in their study of centre-periphery linkages in rural project implementation, distinguished between facilitating and regulating linkages. The first type provides local organisations and businesses with material inputs, organisational and managerial services, technical knowledge, and facilities for storage, transportation and marketing. The latter category includes price regulations, legal provisions and other government directives with a possible impact on commercial transactions. We shall exclude the latter in our further discussion. In a report from the FAO (2003), rural linkages are discussed as a multiple system of commercial transactions and social relations. Linkages are defined as including for example relations between farmers in their associations, and strong, trusting relationships between persons and organisations are regarded as the basis for successful commercial transactions.

In our further clarification of the linkage concept, we shall make a main distinction between three categories, and we shall concentrate on the latter two in the up-coming discussion of policies and strategies. We shall also, however, in section six on experiences of linkage strategies in Indonesia, make a difference between linkages as economic transactions in financial markets, labour markets, and commodity and service markets. The distinction between backward and forward, or input and output, or upstream and downstream linkages is not found very useful and will not be much referred to in the following analyses. The three main categories for founding our further analyses are:

1) Linkages as aggregate values of economic transactions between economic sectors or geographical areas over time. This is the normal use of the linkage term in multiplier and input-output analyses, and much recent linkage research falls under that category.

2) Linkages as continuous relations between economic actors regulated by contracts or government intervention, which facilitate renewed business transactions over time. One example is lasting sub-contracting agreements; another is the government-sponsored foster-parent programme as a policy instrument in Indonesia, discussed in the next section.

3) Linkages as social relations or networks that may be used for developing human, social or cultural capital of value for business decisions, transactions and economic development.

Ad 1): A central precept of the growth linkage model referred to above is that expansion of agricultural output provides the stimulus for the growth of rural non-farm activities in developing economies. Empirical studies have also demonstrated substantial multiplier effects in the rural economy resulting from growth in agricultural production. Studies in Malaysia (Bell et al. 1982) and India (Hazell and Ramasamy 1991) revealed multiplier effects of 1.8, which means that 1 USD extra value added in agriculture created 0.8 USD additional non-farm income. A similar review of evidence for sub-Saharan Africa suggested a somewhat lower but still significant multiplier effect of 1.5 (Haggblade et al. 1989). The causal effect from agricultural growth to increased non-farm activities needs to be challenged, however, in a time when agriculture is on a downturn in most regions and non-farm production could be stimulated by other factors, and also add new growth stimulus to the agricultural sector.

Taylor and Ynez-Naude (2002) concluded in a study from Mexico that the more open the economy, the smaller are the income multiplier effects from agricultural expansion. The great majority of farm – non-farm linkages are with markets outside rather than within villages. A USD 100 increase in exogenous household income stimulated increases in village non-farm production between 0.3 and 12 USD, while village demand for manufactures from outside markets increased by USD 88-103. Trade leakage transfers most of the benefits of income growth in villages to regional commercial centres.

From Tigrey, Ethiopia, Woldehanna (2002) reported that linkage and multiplier effects are generally low in the rural area, mostly because a farm household typically sells only 13-15% of its production. 79% of household expenditure is on food, with a calculated elasticity of demand at 0.87. All non-food items have higher expenditure elasticity, for instance ceremonial and other social services (2.20) and household goods (2.00), and the elasticity of demand is significantly higher on imported items compared to locally produced goods.

Social accounting matrices (SAMs) are regularly used to measure rigorously the economic flows or linkages between sectors of an economy. Econometric models are applied to calculate impacts of changes, for instance increased agricultural household income. Such analyses are weakened by strict model simplifications, and results vary greatly with changes in theoretical assumptions. The results rely heavily on associated estimates of fixed price multipliers (James and Khan 1997: 155). Some findings, after complicated modelling, are also outright obvious, like the result that employment effects on households in Indonesia are greater when traditional techniques are used (James and Khan 1997: 157). Recent studies of multiplier effects using social accounting matrices and comprising rural-urban or farm-non-farm linkages are numerous and include Aristy-Escuder (1999) from Latin America, Lewis and Thorbecke (1992) and Rich et al. (1997) from Africa, and Tarp et al. (2003) from Asia. Main findings include that growth in one sector spreads to others, and that trade liberalisation has positive effects. As stated by Winters et al. (1998: 95), ‘A more open economy is found to allow the agricultural sector to retain more of the benefits of an agricultural productivity increase.’ The last finding is somewhat in contrast to the conclusions of Taylor and Ynez-Naude (2002), which are referred to above. Several studies contribute to explaining the discrepancy by pointing to the fact that the development of human resources and appropriate skill acquisition for the poor in rural areas are important preconditions for taking advantage of potential multiplier effects from trade liberalisation (Tarp et al. 2003, Khan 1999).

Studies of multiplier effects are interesting and useful for gaining knowledge of impacts on demand from increased incomes or investments in various sectors. They have limited value in policy advice, however, without additional perspectives on how linkages as continuous relations between economic actors are created and maintained, i.e. on micro and meso levels. We shall therefore turn to the next main category of linkages in our discussion.

Ad 2): From a district of Punjab, India, Tewari (1998) reported on successful roles of central and regional government institutions in establishing and maintaining linkages among small-scale firms and between agriculture and local industries. Firms in the district are 'highly interconnected through chains of job-workers, layers of contractors, labor teams, intermediate goods producers, and a variety of government institutions engaged in research and development, human resource development, export assistance, monitoring and incentive provision to small and medium-sized firms' (Tewari 1998: 1395). Thus, the rural, small-scale, non-farm sector has been able to develop competitiveness and also achieved integration into national and international markets. The reported efficiency of the linkage system is a result of the combination of commercial and social connections. State-initiated social relations have set the conditions for the expansion of commercial linkages, both within and out of the district**.**

From Mexico, Rello and Moales (2002) reported that public intervention in the economy was substantially reduced with the structural adjustment policies. Technical assistance 'fell into disuse', while leaving an institutional vacuum to be partly filled by commercial agrochemical and fertilizer companies or by agro-industries purchasing raw materials and increasingly dominating the markets. Further institutional reforms are found to be needed there because the state apparatus 'appears obsolete and inadequate' and not able to facilitate optimal linkage effects. The development and competitiveness of strategically important small-scale companies are 'frequently made difficult because of incomplete sources of services, which raise their transaction costs' (Rello and Moales 2002: 94).

Also from Peru, Escobal and Agreda (2002: 97) reported that recent institutional innovations have 'tended to accentuate income concentration and capital accumulation among those who are already wealthy'. Managerial abilities are a crucial element for developing non-farm businesses through successful linkages and there is a need for government intervention to strengthen especially training and technical assistance.

From another part of the world, Mazzola and Bruni (2000) grounded their study in southern Italy on Hirschman's conclusions on the role of production linkages in the development process. On basis of empirical analyses, they call for a shift in the design of industrial policy, which should concentrate more on new incentives for stimulating 'partnerships' among firms in order to bridge the gap between lagging and more industrialised geographical areas.

In section six of this report, on experiences of linkage strategies in Indonesia, we shall mostly refer to linkages as continuous relations between economic actors regulated by government intervention, like above. Firstly, however, we shall take a closer look at a less utilised element of rural development strategy, discussing linkages as social relations or networks.

Ad 3): Social capital is an umbrella term, which has recently been the object of considerable theoretical interest (Bourdieu 1985, Coleman 1985). Following Putnam (1995: 66), social capital can be defined as the features of social organisation, such as networks, norms, and trust that facilitate co-ordination and co-operation for mutual benefit. Social capital is manifested in norms and networks that enable people to act collectively (Coleman 1988, Burt

1997). Winters et al. (2002) defined social capital as the social relations, both vertical and horizontal, that help facilitate the generation of income. Social capital is created in the interaction between people, increasing the strength and value of personal qualities like intelligence and work experience. Networks represent a means for entrepreneurs to reduce entry barriers and transaction costs and to improve learning and information sharing possibilities for the development of technology and competitive strength. In regions where capital markets are rudimentary, financial disclosure is limited and contract law very weak, interpersonal networks are critical to taking risks and moving economic resources. Mutual trust generally facilitates co-operation between entrepreneurs, which is important in achieving efficiency and gaining some economies of scale, not least for small-scale enterprises.

The study of entrepreneurship has increasingly reflected the general agreement that entrepreneurs and new companies must engage in networks to survive (Huggins 2000). Within the social network paradigm of entrepreneurship research, a number of quantitative analyses have been undertaken and models developed accordingly. Most studies confirm the importance of networks for business performance and growth (Barkham et al. 1996, Chell 2000, Merenda et al. 1996, Staber 1996). Johannisson (1996) found that networking enhances optimism and is of importance for motivating, providing social support, and building a basis for initiating projects. Most studies of relations between social networks and entrepreneurship assume that networking gives access to resources that the entrepreneur needs for the start-up process, thus linking the network approach to resource dependency theory (Thompson 1967, Pfeffer and Salancik 1978). Examples of such resources are capital, distribution and marketing channels, technologies, and the basic ideas of starting new businesses. Recent work by economists has begun to quantify the advantages that networks may provide to entrepreneurs in developing economies. Fafchamps (1998) found that personal networks give entrepreneurs in Kenya and Zimbabwe significant preferential access to credit, and Kristiansen and Ryen (2002), also from Africa, assessed the advantage given by ethnic networks on business performance. From Ghana, empirical evidence shows that the adoption of innovations in rural areas is strongly influenced by the support from social networks (Boahene et al. 1999). Including measures of social and public capital in a factor analysis of rural income generation in Mexico, Winters et al. (2002) showed that these assets play an important role in income-generating activities. Participation in formal organisations is among social capital factors that influence on non-agricultural employment and income opportunities.

A substantial body of theory and a number of empirical findings indicate that four characteristics of social networks could have significant influence on the development of resources for rural small-scale non-farm businesses: number, strength, variety, and dynamics (Kristiansen 2004). Raising the number of contacts creates an advantage in the entrepreneurial process because it raises the probability that a specific resource can be reached. Strong contacts or dense relations are normally constituted by family members or close friends and characterised by an emotional content and time-consuming maintenance. They are of special value when trust and moral support are crucial. Diversity or variety is important because it opens for providing access to new information and other resources from sources in various social layers and geographical areas. Dynamics and flexibility in social relations provide for creativity and flows of new ideas, useful skills and novel knowledge.

Even though linkages as social relations have not been much used as specified instruments in rural employment creation strategies, and therefore is less relevant in experiences from Indonesia, we shall return to the above theoretical basis in section seven, discussing possible new policy instruments for changing contexts.

6. Experiences of linkage strategies in Indonesia

The Indonesian government started early its work to assist small-scale enterprises, first and foremost by subsidised capital credits distributed through state banks. Because of historical traditions and the weakness of the indigenous business community, the political elite early saw a need and an opportunity for the government to play a large role in the economy. Research findings and experiences from existing small and medium enterprise (SME) development programmes, in Indonesia as elsewhere, tell that government credit programs are seriously leaking (Gupta and Chaudhuri 1997). Moreover, they tend to disturb market mechanisms at high social costs. Banks and financial institutions in Indonesia have recently developed into a mature business line with a wide geographical outreach, and private operators in an open competitive setting are now in most cases regarded as good substitutes for government programmes in credit and venture capital provision.

In other areas of business and small-scale enterprise support, the need for market interventions may still be there. According to Ananda (1998: 114-115), poorly integrated spatial systems often provide little opportunity for economic interaction in Indonesia. There is a lack of relations 'between villages, market centres, intermediate cities and metropolitan areas' and a need for linkages to be created among such places and activities. There is an absence of a spatial system composed of integrated central places, and incentives for local and regional linkage creations have been weak. Periodic markets are not large enough to stimulate commercial agriculture and small industries. Existing small towns are only to a limited extent linked up to their hinterlands because of a lack of communication and information flows, 'especially in the small-scale non-agricultural sector'. Ananda (1998) concluded that there is a need for improvement of both social and physical infrastructure in rural market areas to facilitate linkage creation and smooth the progress of bottom-up development.

Most policies breaking with the rules of *laissez faire* in Indonesia are explained by leading economists as irrelevant or counterproductive to the country's economic growth and export success (Hill 1996b, MacIntyre 1994). This view was challenged by Rock (1999), who fond that government intervention in agricultural markets was highly effective and that for instance fertiliser subsidies were used to overcome failures in information markets. Also publicly funded agricultural extension programmes are examples of efficient policies deviating from conventional neo-liberal economic wisdom.

According to Rock (1999), two conditions must prevail for government intervention in markets to work efficiently. There must be market failures in the learning process, and interventions must be selective and industry specific. In planning and implementation, such policies demand capacity, competence and autonomy. There must be a distance between individual and elite economic interests and the professional decisions and work of policy makers and bureaucrats. Intervention policies also require thorough procedures of monitoring and control to be kept on track and working at socially acceptable costs.

Small enterprises in the non-farm sector in Indonesia have generally fallen under the jurisdiction of the Directorate General for Small Enterprises in the Ministry of Industry and Trade, and are sub-divided into five sectors: food; textile and leather; chemical and construction materials; handicrafts and general goods; and metal. However, several ministries have competed for funds and influence, often in collaboration with their respective major

donor organisations (Dove and Kammen 2001). Three main ministries have been involved in supporting rural linkage and employment creation: In addition to the Ministry of Industry and Trade they are the Ministry of Agriculture and the Ministry of Co-operatives. While formally visiting the three central ministries in March 2003, we found a remarkable lack of policy overviews and perspectives and an almost total absence of assessment or evaluation reports from previous or on-going programmes.

In addition to the three main ministries, also the central bank, Bank Indonesia, played a major role in programmes including credits, and a number of other ministries, like the Ministry of Home Affairs, Ministry of Public Works, Ministry of Manpower and Transmigration and Ministry of Forestry have been in charge of substantial programmes in this field. The co-ordinating institution has been the national planning agency, BAPPENAS. Even this institution could not present an overview of programmes aiming for rural non-farm employment creation upon formal requests. More recently, a main responsibility for rural employment and linkage programmes has been transferred to the Ministry for People's Welfare.

Several large-scale central government programmes are mixed as regards policy instruments. In many cases, financial linkages or credit supply are combined with commodity and service market linkages. Access to sources of capital is arranged jointly with advisory services and access to input or output markets. In the following, a selection of main programmes is presented under the market category where linkage creation has been most dominant. We organise the discussion by a distinctions between intervention in financial markets, labour markets, and commodity and service markets, including supply of information.

- *Financial market linkages: credit programmes*

In the New Order period and also after the economic crisis and political changes, numerous rural credit programmes have been launched and operated, aimed both specifically for the agricultural sector and for non-farm activities. Typically, programmes changed names if they lost credibility but continued more or less in the same manner of operation. Subsidies on credits were gradually reduced since the late 1980s, and from the early 1990s, levels of subsidies have been very low and annual interest rates typically at 40% or above.

New Order credit schemes for farmers addressed to enhance and establish off-farm or non-farm activities include *Proyek Peningkatan Pendapatan Petani-Nelayan Kecil* (P4K), *Kredit Investasi Kecil* (KIK), *Kredit Modal Kerja Permanen* (KMKP), *Kredit Candak Kulak* (KCK), *Kredit Mini*, *Kredit Midi*, *Kredit Umum Pedesaan* (KUPEDES), *Kredit Kepada Koperasi Primer Untuk Anggota* (KKPA), *Kredit Kelayakan Usaha* (KKU) and *Kredit Usaha Kecil* (KUK) (Suyatno et al. 1995). KUPEDES, established by the government in 1984, especially targets small-scale industries in rural areas. It covers two-year working capital credits as well as three-year investment credits. There are also a number of regional credit schemes limited to certain geographical areas, for instance *Badan Kredit Kecamatan* (BKK), dominantly in Central Java, *Lumbung Pitih Nagari* in West Sumatra, and *Kredit Usaha Rakyat Kecil* (KURK) in East Java. Most credit schemes are technically operated by one of the government banks, most dominantly Bank Rakyat Indonesia, while supported professionally by certain ministries and also often financially by the central bank or foreign donors. In the case of P4K, for instance, both UNDP (United Nations Development Programme) and ADB (Asian Development Bank) have contributed financially. Several major credit schemes, like KMKP and KIK were abandoned in the mid-1990s and intentionally substituted by a request from

central bank that all domestic banks should direct 20% of their total credit value to small- and medium-sized enterprises.

After the economic crisis, the central government has tried to stimulate productive activities by offering new credit schemes for certain targeted rural non-farm activities. Examples are *Kredit Modal Kerja Bank Perkreditan Rakyat* (KMK-BPR), *Kredit Usaha Kecil dan Mikro* (KPKM), *Kredit Penerapan Teknologi Tepat Guna Pengentasan Kemiskinan* (KPTTG-Taskin), *Kredit Modal Kerja Usaha Kecil dan Menengah* (KMK-UKM), *Kredit Penerapan Teknologi Produk Unggulan Daerah* (KPT-PUD), *Kredit Pengentasan Kemiskinan bekerjasana dengan Koperasi* (Taskin KOPPAS), and *Proyek Peningkatan Pendapatan Petani-Nelayan Kecil* (P4K phase III).

It is difficult to get an overview of the functioning of Indonesian government programmes for financial linkage creation. Reports from a number of studies of rural credit programmes published in international journals have contributed to create a positive impression, however. These studies include Bolnick (1988), Chaves and Gonzalez-Vega (1996), Morduch (2000), Patten et al. (2001), Riedinger (1994), and Yaron (1994). They are, by and large, extraordinary positive to achievements of government intervention in creating finance market linkages.

Morduch (2000) found that even poor households are eager to save if given appealing interest rates, observing a high number of savers in Bank Rakyat Indonesia. A common experience from the 1960s and 1970s was that politically powerful groups, 'usually not poor', gained most from the value of the subsidised credits. The lesson from the failures of the 1960s and 1970s is to avoid excessive subsidies, while not necessarily avoiding subsidies altogether. Patten et al. (2001) found that the Bank Rakyat Indonesia (BRI) village unit system is probably one of the largest and most successful micro-finance institutions in the world. Owned by the government, the BRI presently operates according to ordinary commercial banking rules. The bank's stated primary mission is the provision of rural and urban community banking services by mobilising family savings and delivering credit products to medium, small and micro-enterprises. The rural credit instrument, KUPEDES (General Rural Credit) is arranged for repayments fit to the cash flows of borrowers with various kinds of enterprises, whether agriculture or fish production, trading of various kinds, handicraft or small industrial production, or services. So far, KUPEDES borrowers have continued to pay back more than 97% of everything that has fallen due, throughout both the monetary crisis and drought, which is an extraordinary high rate as compared to larger enterprise borrowers. Chaves and Gonzalez-Vega (1996) explained the success in outreach and sustainability primarily by the networks of semiautonomous units that use local information and contract enforcement mechanisms to lower transaction costs. Riedinger (1994: 309) concluded that the Central Java's *Badan Kredit Kecamatan* (BKK) programme is a formidable demonstration of the possibilities for effectively addressing the credit needs of micro-scale, rural entrepreneurs, notably including women, through formal institutions. A key to success is financial viability of the credit institution by minimising administrative costs and imposing interest rates sufficient to cover costs and prevent capital erosion. Yaron (1994) found that a key to success appears to be the introduction of a social mechanism that lowers transactions costs, while supplying effective peer pressure for screening loan applicants and collecting loans. Bank Rakyat Indonesia Unit Desa (BUD) and BKK have used the authentic and official leadership in the village to help screen loan applicants and secure prompt loan collection. According to Yaron (1994: 60), 'The use of the village head as an intermediary [is] so successful for the BKK and the BUD'. Zeller and Sharma (2000) identified insurance as the missing third of

rural micro-finance during the 1990s (after savings and credit schemes had been established), and they concluded that Bank Rakyat Indonesia has been clever and innovative by making a sideline into the business of insurance. Rural borrowers are required to buy life insurance for safeguarding loan repayment in case of their death.

Other studies, remarkably many of them made by Indonesian academics, are more negative to achievements of rural credit schemes. Zaini (2000), studying impacts of the P4K programme among others, concludes that rural development programmes appear to give more benefit to better-off households, while poor households tend to be excluded. Participating households have better access to agricultural land, higher levels of education and more chances of being engaged in non-agricultural activities. Participation in rural development programmes have a significant positive impact on income and poverty reduction but has no significant impact on job creation, due to the fact that most support goes to already established activities. The programmes tend to support on-going activities rather than create new and innovative ones. Dove and Kammen (2001: 629) critically observed that in the P4K programme, shared responsibility for all loans taken by members within the group reduce the risk for the bank (BRI) in a way very different from risky loans to commercial borrowers. The group-based borrowers actually 'in effect subsidize the involvement of the bank in its lending program to state elites'.

Both Syamsudin (1994) and Syauta (1990) found that credits taken by the rural population might not be of benefit for increasing their net income. From Central Java and the Maluku their research indicates that farmers and fishermen taking credits from KUPEDES have similar or lower income compared with those who do not. The reason is found to be the burden of high interest rates on the loans taken. Mubyarto (1993) and Robinson (1993) pointed to complicated administrative procedures as reasons for low realisation rates of provided loans and low participation especially by the rural poor. They simply prefer to use the well-functioning traditional informal systems of savings and credits (*arisan*, a kind of rotating savings and credit association, 'Rosca').

Most formal and bank-based rural credit programmes have made financial sustainability their chief goal. Assessed on the basis of this criterion, results of their efforts might be more positive than from a perspective of linkage creation, participation or poverty alleviation.

- *Labour market linkages: migration programmes*

Awareness of the importance of urban-rural linkages in Indonesia is old. Families have for long balanced their labour resources among different sectors and regions, creating spatial and inter-sectoral linkages (Leinbach and Watkins 1998), and urban industries have been recognised to rely on rural labour for expansion (Rigg 1998). Socio-spatial networks have facilitated access to employment, as well as access by rural households to cash income, and access by city-based migrants to agricultural produce (Silvey and Elmhirst 2003). During the crisis it has been found that especially women's increased rural-return migration had an important impact on households' livelihood security (Silvey 2001).

The Indonesian government's transmigration programme has fallen under the authority of a separate ministry for transmigration. It is acknowledged to be the largest voluntary land settlement scheme in the world (Leinbach 1989) and has involved the resettlement of millions of people from densely-populated Java to the country's 'outer islands', especially Sumatra, Kalimantan and Sulawesi. The programme had several objectives. The formal ones were to

release the densely populated inner islands of Java and Bali from excess population and supply labour power to regions and projects in need, for instance agricultural estates. At the same time, the transmigration resettlement programme represents 'a centre-piece in government efforts to construct national unity' (Elmhirst 1999: 814). The programme is implicitly concerned with the control of people and space by the central state. Elmhrist (1999: 820) refers to Giddens' (1990) four features of modernity, which are capitalist penetration, industrialism, military power, and surveillance, to explain this construction of space through the combination of economic linkages, cultural dominance and power relations.

Despite considerable success, the programme has been plagued by numerous problems. These include inadequate income levels in transmigration settlements, improper site selection, poor matching of settlement models to the specific sites, environmental deterioration, migrant adjustment and social conflicts, land conflicts, and financing (Leinbach 1989, Holden et al. 1995). An example of bloody inter-ethnic conflicts arising from transmigration programmes is the one between migrant Madurese and the native Dayaks in Central Kalimantan, peaking in 2001.

Another migration programme should also be mentioned under this brief presentation of labour market linkages, that of the Resettlement of Isolated People handled by the Ministry of Social Affairs. Several hundred thousand people have been moved from isolated areas especially in Papua and Kalimantan to be integrated in the process of modernisation at less peripheral locations. They have been offered access to public goods such as health and education and are expected to contribute in the labour markets in rural areas of resettlement, given the 'moral goodness of routinized work in orderly fields and villages' (Li 1999). The programme is, needless to say, compiled with problems of dissatisfaction and loss of social and cultural values for the 'primitive' peoples involved.

- *Commodity and service market linkages: clusters, sub-contracting and co-operatives*

Several central government programmes have aimed to reduce entry barriers and transaction costs and to enhance technological levels and competitive strength by creating linkages for flows of commodities and information in industrial clustering and co-operative arrangements. In the following discussion, emphasis is put on cluster programmes and their preconditions and results. Results of the *Perkebunan Inti Rakyat* (PIR) and *Bapak Angkat* programmes are also briefly mentioned because of their special relevance for urban - rural and farm - non-farm linkages.

The government of Indonesia has for a long time formally and financially stimulated rural cottage industry clustering to encourage horizontal and vertical linkages and thereby rural employment and development (Alfan 2002). The *Sentra Industri* programme was initiated and financially and technically aided by the UNDP in the early 1980s. It has later spread to comprise more than 7,000 clusters in 24 provinces (Ananda 1998, Weijland 1999). 63% of small-scale firm employment in the country is in firms that are clustered (defined statistically as at least 20 firms in a village) and a large number of rural business activities, both farm and non-farm, are nested in clusters of similar producers (Burger et al. 1999). The propensity to accept and enter into formal interaction between clustered firms tends to increase with higher entry barriers, like requirements to information and economies of scale. From studies of 4,000 rural clusters in Indonesia, Weijland (1999) concluded that cluster-related development of social capital is of crucial importance for technological development and to attract traders to the clustered enterprises. By grouping village-wise to gain a critical mass of producers, skills

and bargaining power, small-scale businesses overcome disadvantages of smallness and isolation that otherwise might incur unreasonably high transaction costs and technical indivisibility problems.

A core element in the clustering strategy is to attain a critical minimum mass by bringing firms into proximity and co-operation. External economies in enterprise clusters, according to Krugman (1991), originate either in labour market pooling, intermediate input effects, or in technological spillovers. Obviously, there is a need to add the most basic of agglomeration economies: market access. Clusters clearly have the potential to attract buyers and thereby reduce transaction costs. Spillover effects result in substantial social gains, but might appear primarily as potential business losses to the original entrepreneur due to sharpened competition. According to Schmitz (1995, 1997), 'joint action' is a crucial element in the collective efficiency of clusters. Consciously pursued joint action must be present for clusters to flourish. Joint action can be bi- or multi-lateral, for instance by sharing expensive equipment, or joining in an association for purchase or sales of goods. Joint action is vertical when firms involved in different stages of a production chain work together. Horizontal joint action refers to collaboration between competitors. From Latin America, Altenburg and Mayer-Stamer (1999) found that a lack of trust between entrepreneurs and poor contract enforcement mechanisms resulted in low willingness to co-operate, compromising the potential to reap the benefits of clustering. Small-scale business starters act perfectly rational when they try to avoid sharing of information and the following imitation by competitors. There is often little incentive to invest in long-term relations and commitments.

In Indonesia, Sandee and Rietweld (2001) demonstrated that indivisibility in innovation and technology may be overcome by clustering, like in the production of roof tiles. Non-clustered small-scale producers often do not have access to information necessary to assess options for innovation and they lack access to dynamic markets. Several studies from Indonesia indicate that clustering has a positive impact on innovation and competitiveness. Especially in densely populated Java, conditions are fit for positive external economies. Weijland (1994: 109) stated that the 'densely-populated areas with good trade networks are probably the most favourable seedbeds for rural industry'. Especially at early stages of industrial development, clustering may have a seedbed function and help to widen their markets. Rutten (1999, 2001), also studying small-scale enterprises in rural Java, found that the clustered entrepreneurs have entered a process of dynamic technological changes and product development by way of establishing co-operative societies, associations, and partnerships with both family and non-family members of their society. Their community of devout and pious Muslims contributes to creating an atmosphere of trust and 'psychological confidence'. Also Sato (2000: 161) found that clustering and forward linkages to the modern, urban sector have positive impacts on dynamics and growth, at least in top-layer firms of rural enterprises in Java. Kristiansen (2001) showed how a cluster of mushroom producers in Yogyakarta, Java, developed without any government intervention but based on an innovation in the form of an imported production technology and the opening of an external market. Technical and organisational change dynamics in that case was brought in by a Taiwanese non-government organisation. The cluster development had huge social benefits, while profits to the pioneers were reduced over time following increasing competition and lower prices.

The *Perkebunan Inti Rakyat (PIR)* programme, or People's Nucleus Estate, also aims to establish business dynamics in remote or lagging areas by the linking of enterprises in proximity. The system consists of satellite smallholdings surrounding and selling their produce to large-scale, often government-owned, estates. The programme has regularly been

combined with transmigration projects in the outer islands, and whole new towns or villages, with up to 12,000 people have been developed from scratch. Cash profits were expected to circulate in the areas, creating linkages to new industries. The subsequent income multiplier effects were expected to bring the regional economy into a higher level of development (Manalili 2000). Many difficulties have appeared in this programme, however (Barlow and Tomich 1991), mostly because the interests of the estates have dominated over those of the smallholders. In the case of rubber production, this way of organising linkages was the result of the large-scale plantations' need to control smallholders' production, and not primarily targeting the needs of the smallholders (Dove and Kammen 2001: 625). Actually, according to the same authors, there is a long history of state disinterest in and merely opposition to smallholder production and a corresponding open or hidden motive to support the elite-related large-scale enterprises.

The *Bapak Angkat* programme (foster father or 'godfather' programme) was established by the Ministry of Co-operatives in 1974 to encourage linkages and sub-contraction between large- and small- scale enterprises. Until 1992, 78,509 small-scale enterprises were registered in the programme in 26 provinces (Ananda 1998). Large-scale companies were invited to take initiatives and make partnerships with small-scale, preferably rural enterprises for mutual benefits and empowerment. Formally, the main idea was that the large should assist the smaller, both in technical, managerial and financial matters. Of special intended importance was securing access to markets for products from micro-scale enterprises and supplying them with ideas and new technology. Kristiansen (1999) gave an example by a case study from Central Java of how a small cluster of iron-work cottage industries in a small village gained from cheap access to raw material (scrap iron) and loans for the purchase of more advanced electrical machinery. Increasingly, however, information has been leaking in Indonesia on how the 'godfathers' took advantage of their inferiors, for instance department stores buying goods from small-scale producers on credit and selling with a profit of several hundred percent (Jakarta Post 25.8.1996). The programme generally lost credibility due to comprehensive misuse of power and means by large-scale enterprises and corruption by involved government officers. Potential advantages from this kind of arrangement are obvious, however. Hayashi (2002) concluded from a thorough analysis of the metalworking and machinery industry that inter-firm cooperation through long-term subcontracting linkages increased productivity of Indonesian small-scale enterprises. Several other studies of subcontracting linkages in Indonesia support the general conclusion that rural non-farm employment can be stimulated by various arrangements to bind sectors and industries together (Berry and Levy 1999, Erfanie 1985, Hamid 1985, Harianto 1996, Hayashi 2002, Sato 2000).

Co-operative selling institutions are also potential catalysts for reducing transaction costs and stimulating market entry but should normally be accompanied by other inputs such as infrastructure and knowledge at the household level (Holloway et al. 2000). According to Ananda (1998), the top-down policy and a general lack of trust in Indonesian co-operatives, due to their bad image following corruption and inefficiency, have reduced their positive impact on rural non-farm businesses. State-initiated or -funded co-operatives in the country have lost their credibility due to widespread misuse of power. Only a total reorganisation and a new image could enable Indonesian co-operatives to work efficiently to lower transaction costs in rural businesses, as generally indicated by Reardon and Barrett (2000) above.

Pomp and Burger (1995) demonstrated how limited information leads Indonesian farmers to copy adoption decisions of others, and most business units tend to avoid adoptions that have not proved successful in their vicinity. Private investment in information is likely to be below

the social optimum, justifying government policies aimed at providing both farmers and non-farm rural producers with relevant business information. However, there is the general tendency that interventions in service markets in the form of information supply sponsored by government institutions are also top-down and based on elite economic interests. They tend to reflect traditional arrogance from the suppliers towards the needs and established competencies of those being supported (Kristiansen 2003b). Many rural credit schemes are accompanied by this kind of top-down information supply, paying little respect to customs, social values and the tacit knowledge of traditional businesses and organisations.

7. Discussion: New policy instruments for changing contexts

Some of the rural development programmes initiated and pushed by the Indonesian government produced positive outcomes. The credit schemes are generally assessed most positively. However, top-down government intervention has generally lost credibility due to widely documented corruption and misuse of power. Private institutions have also developed, especially in financial markets, which take well care of input supply without any pivotal role of government institutions. Most Indonesian central government programmes for linkage creation have failed to reach their stated goals. Extensive rent-seeking and *KKN* (corruption, collusion and nepotism), rendered possible by the lack of political competition (Cassing 2000), are reasons why government intervention in labour, commodity and service markets in the form of linkage creation did not work as intended. People in power have taken advantage of funds and interventions, and traditions have been maintained in the way that wealth follows power (Anderson 1990: 53). Entry barriers to powerful positions are maintained at high levels. Any influential government employment, for instance, is still very expensive to obtain. However, market failures are also apparent, and there are more than ever reasons to search for strategies of linkage creations that reduce market failures without enriching the powerful at high social costs. A liberalised economy and democratised society unite in a compelling call for new policy instruments.

Recurrent problems of market failures that still justify state intervention include imperfect information as a core element (Besley 1994, Greenwald and Stiglitz 1986). Information market failures are more prominent in populations with a high percentage of uneducated people and huge economic and social differences among individuals and organisations (Stiglitz 1989, Dove and Kammen 2001). The information divide tends to be cumulative, both between rich and poor countries and within developing areas, thus hindering entrepreneurial endeavour where mostly needed. Information market failures seem to be on the increase in developing countries (Ponte 2001) and represent a severe moral hazard in many contexts (Bappenas 1999). The main question remains, however, how any market intervention could be made without primarily befitting those already in power. Two issues then call for special attention. One is the already mentioned ongoing process of change in Indonesian power structures following democratisation and decentralisation. The other is related to the special characteristics of information markets. This leads us to a discussion of policies for improving education and information supply, and socialisation and mobility. Their aims should be to reduce entry barriers, lower transaction costs, and improve technological capacity and competitive strength in rural non-farm businesses.

- *Institutional context and changes following regional autonomy*

The prevailing development doctrine has included the confidence that resources would eventually 'trickle down' to the poor in the periphery by giving them access through linkages to the rich in the centre. When these downward resource flows did not materialise, the blame was often placed on the poor themselves. More recently, critique against this system has been more open. There is a chronic problem of *kebocoran*, leakage of funds at intermediate levels. Means simply disappear in the administrative system on their way out from the centre to formally intended beneficiaries in the periphery. As referred to in Dove and Kammen (2001: 626): 'Central funding is like *es batu*, a block of ice. The further it gets from the centre, the smaller it gets.' A crucial question is if spread of information follows the same structure and is exposed to the same leakage as flows of financial resources. From India, Fisher et al. (1997: 113) reported that 'the current complexity of the regulatory environment leads to significant information, and hence power, asymmetries ...'. In Indonesia, according to van Ufford (1993), ignorance became an important asset of those engaged in policy processes. Lack of insight among ordinary citizens into what actually goes on in society became of paramount importance to political and economic elites. Ignorance, therefore, must be constructed and defended. 'Ignorance is a defensive construct against false assumptions which, for cultural and political reasons, underpin development policy making' (van Ufford 1993: 157).

Development policy making in Indonesia is now being recast. After the decentralisation and regional autonomy reform, the new powerful political and administrative units are the district parliaments (DPRD) and the ministerial executive branches at the district level. At an average, the districts embrace more than half a million people. There is little reason to believe that the dominance of strong elite interests will dismantle or that *KKN* would disappear in the short run, in spite of comprehensive system reforms. One sign of traditional power structures being maintained and a lack of participation in political processes by ordinary citizens is the fact that only 6% of DPRD members are women.[2] Chances of an improved institutional context lie in increased knowledge and transparency in the society, a local demand for change, and in the fact that there is now an opening for political competition.

Political intervention in linkage creation to facilitate continuous transactions in capital and commodity markets goes on. A number of central government programmes are still running more or less on the same track as previously (appendix 1), though with declared political intentions of turning strategies upside down and making them bottom-up schemes based on local community initiatives. In spite of continuous strong interest in credit supply, more weight is being put on advisory service, skills training, socialisation and human resource development, which indicate at least a tendency to concentrate government policies more on linkage creation where market failures are most severe, in information markets.

- *Information markets*

In the market for information and knowledge, potential customers are typically ignorant of potential gains from obtaining services above their level of awareness. Private production or supply of information may be inhibited because potential purchasers find it difficult to evaluate information prior to its acquisition. A transition to a new technology, quality, or market area offering benefits greater than costs may not be arranged, and inefficient or sub-optimal economic organisations become the dominant long-run equilibrium outcome (Weiler 2000). Ignorance may create market failures simply by limiting demand to a level where transactions do not take place. In addition, there is the spillover explanation of information

[2] Ministry of Home Affairs: Decentralisation News, no. 34, September 2002, Jakarta.

market failure. Fear of spill-over effects may, according to Bartik (1990), act as a hindrance for information purchase by individual businesses. Entrepreneurs may be sceptical of purchasing and making use of new information and competence, because of the risk of information leakage and the adoption of the production technique by others (Kristiansen 2002). Spillover effects could result in substantial social gains, but might appear primarily as potential business losses to the original entrepreneur due to sharpened competition.

On the supply side, those in possess of knowledge of value for their businesses have strong reasons to avoid diffusion and thereby increased competition. Spread of information may be hindered and the 'principals' allowed to remain dominant in the profitable businesses (North 1993). This is a form of information market failure that was firstly elaborated by David (1985) and Arthur (1988). They explained the way in which increasing returns of new ideas and technologies tend to lock the players into a particular and not necessarily socially optimal path. Rising returns in a free market typically generate sub-optimal equilibrium solutions due to the control of information and competence. The individual rationale behind is a 'climb the ladder and pull it up'-philosophy. The propensity of dominating business actors and political allies to economise on limited knowledge is emphasised by Eggertson (1997) as a reason behind weak institutional designs and failures of economic development policies. However, much business knowledge is freely available through various sources or could be purchased at a certain price. A crucial point is to increase the general awareness of potential users of possibly available information for business start-up and development. Means to do so are primarily related to education and information supply and to socialisation and increased mobility.

- *Education and information supply*

The best way to reduce information asymmetry and contribute to correct information market failures is probably to stimulate the demand side. The reduction of ignorance and increased awareness of potential gains from new information can first and foremost be enhanced by improving the basic education system.

It is normal in rural areas, especially in the more remote parts of Indonesia, that parents do not send their children to school. Drop-out rates have been severely under-reported recently, because the reporting schools themselves have an economic interest in keeping a maximum of pupils on the enrolment lists. For the parents, sending kids to school is an economic question. There are payments to be made by the parents for uniforms, books, stationery, teachers' salaries, and school-building rehabilitation. Even if primary education ideally and legally should be free, actual costs are relatively high. Transport costs might also be burdening and the children's time is lost for immediate productive efforts. These costs are naturally balanced against returns. The school system is still commonly regarded as part of the top-down authoritarian state regime, supplying ideology and discipline more than knowledge of practical value. The curriculum at the primary and secondary school levels is still characterised by ideological and religious topics and elevated maths and natural science, more than by down-to-earth practical knowledge and skills of value for income generation in the specific local contexts. For instance, except for a few vocational schools (*Sekolah Menengah Kejuruan / SMK*), we have seen no teaching in basic budgeting and accounting, no guiding in negotiation and contract law, and little instruction in alternatives for rural household income diversification. This is the case even where options for alternative income generation have been very apparent, for instance in poultry business in eastern Indonesia (Kristiansen 2003c).

The districts are now given a huge responsibility for providing public services in the education and health sectors. The even supply of services at an acceptable level of quality is a matter of finances as well as of human resources. The districts seem to lack both. Only around 4% of the present central government expenditures are allocated for education, while UNICEF estimated that more than 6 million children between the ages of 7 and 15 dropped out of school after the economy plummeted in 1997 (UNICEF 2001). ILO estimated that close to 12 million school-aged children did not attend school during the year 2000.[3] In a recent interview, the newly appointed minister of education stated that 'fortunately, although [the budget for education] is only 4 percent, people have very large funds. People don't mind paying for the world of education …'[4]

There is a need for comprehensive reforms of financial and managerial arrangements as well as of curricula and pedagogics to make schools affordable and relevant for the rural poor. Practical skills and knowledge of value for income generation should be emphasised, as should social values and cultural pride in various economic and socio-cultural contexts.

Increased knowledge basis and consciousness of gains from acquisition of additional information and skills should be accompanied by easier access. Infrastructure should be developed to facilitate the utilisation of learning possibilities through information and communication technology. The Internet, for instance, already comprises a huge number of information sources using the Indonesian language and the number of users increases rapidly, in the larger cities. The price of access to the Internet varies with location, and if at all available, user rates in *warnet* (Internet cafés) are typically five times higher in rural areas compared with urban centres, while speed is one tenth due to different technology available (Kristiansen et al. 2003). According to Grewal et al. (2003), increasing transparency of price information, for instance by the use of the Internet, could enable a closure of the traditional information asymmetry that exists between the buyer and the seller of products from rural areas of poor countries. James (2003) has optimistically proposed technological and organisational solutions on how to reach the rural poor with information from the Internet in India. Modern information technology is also proved to be able to strengthen commercial relations and at the same time strengthen cultural pride and the value of traditions in Indonesia (Little et al. 2001).

Government intervention in information markets is less risky from a social cost point of view than in capital or commodity markets. Firstly, because leakage in the transfer of knowledge, skills and information through government linkages create less individual revenue for people in positions, and leakage create social gains instead of costs. The more information is spread, the higher are normally the social benefits. Secondly, because any price disruption in information markets is likely to benefit the poor and unprivileged more than the wealthy, and at low social costs. The intelligence and ability to absorb information are independent of wealth, though social capital matters, as discussed below. Free education and improved school quality will benefit households that are affluent in children rather than in land or capital assets. Also, there are small risks of excess use of information in relation to other services or factors of production due to subsidised prices.

- *Socialisation and mobility*

[3] *Jakarta Post*, Dec 9, 2000.

[4] Interview with Mr. Abdul Malik Fadjar, *Tempo*, January 8-14, 2002.

People's capabilities to change are influenced by their social contexts, like family, kin, caste, ethnic group, and community and belief systems mediated through other social institutions. The social embeddedness of individual and household actions and the variety of region-specific cultures and community characteristics must to be kept in mind when strategies for linkage and rural employment creation are designed (Ellis 1998, Tambunan 2000b). According to Silvey and Elmhirst (2003), recent urban poverty and unemployment, coupled with the possibility of reverse migration, prompted a renewed interest in the social networks that link rural and urban regions of the country. The crisis actually created an awareness that both the state and the free market have failed and thereby also a renewed interest in community initiatives for social capital development that could be of relevance for employment creation (Grootaert 1999).

Even though theories of social networks do not constitute a platform for official linkage policies for rural business development and employment creation in Indonesia, social relations are crucial parts of rural daily life and survival strategies for small-scale businesses. They also carry potentials that could be more actively used in employment creation strategies. However, social capital is not easily engineered by outsiders, and social linkages cannot be created by external intervention but have to grow from the social dynamics that characterise society. Still, government policy instruments could possibly facilitate the development of social networks if well planned and adjusted to local economic, social and cultural contexts. It should be kept in mind that Indonesia has more than 300 ethnic groups with different languages, traditions and identities.

Social networks may be developed based on various motives (Hydén 2001). There might be individual or community economic interests, as we have discussed in reducing entry barriers and transaction costs and increasing competitiveness. They might also grow out of class solidarity based on a common sense of being exploited. Also, when traditional values are threatened by modernisation and external dominance, people may seek collective action through social networks to defend these values.

Rural life on the 'inner islands' of Indonesia (Java, Madura, Bali and partly Lombok) is characterised by long traditions of numerous and close social relations. Neighbourhood co-operation (*gotong royong*), village life cycle ceremonies, and religious rituals and daily practices bring many people regularly together. Aass (1980) found that a non-modern attitude to work was still prevalent in rural areas of Java, some time ago though. To work is being together with relatives and neighbours in a process that is as much social as economic. The number of social relations is huge and they represent a variety of strong and weak ties, which should be ideal from the perspective of the social networks paradigm in entrepreneurship research. However, the variety and dynamics of social relations are normally limited by geographical, ethnic and religious borders.

Customs and qualities of social capital are different across the country. Certain ethnic groups have long traditions in mobility and in creating trading and social networks over large geographical areas. For instance, the Bugis have been seamen and traders for centuries and built up networks stretching throughout the archipelago forming an intra-national trade diaspora (Mohann 2002: 84). Similar characteristics account for the Chinese, Minangkabau, Makassarese, Batak and several others ethnic groups. By their more widespread and dynamic social relations they have established and maintained dominating roles in certain industries and trades. Their variety and dynamics of social linkages are maintained and enhanced by

communication and mobility, of importance both for learning effects and commercial relations' development.

A more fully-fledged set of social networks for people in rural areas would include qualities such as a high number of relations, a combination of strong and weak ties, and high degrees of variety and dynamics. This would give people a wider perspective on options for progress, better access to resources such as information and capital and thereby improved chances to create employment and to succeed in business. A combination of improved education and social linkages would probably have a strong positive impact on poor rural households' ability to engage in small-scale non-farm production. Entry barriers to non-farm activities would be reduced due to improved access to skills, information and capital. Transaction costs could be reduced by more cooperation, reduced disadvantages of smallness of scale, and by improved access to market information and reduced commercial risks. Chances for technological development and improved competitive strength could likewise be enhanced by increased information flows and stronger underpinning of knowledge and skills. Also, people and organisations would be given increased chances to avoid exploiting relations to monopolising enterprises and to resist dominating influence from the assertive marketing of 'superior' imported industrial goods. One example are social campaigns to maintain the preferences for traditional batik clothes in Java, thereby resisting pressure from foreign fashion garments and maintaining the competitive strength of many local textile enterprises. This is social manipulation of income elasticity of demand, which can contribute to avoid the typical increased trade leakage from rural areas following increased income. Similar social processes based on collaboration and cultural pride can be found behind strong local preferences for locally produced groceries, furniture, metal-works and building materials in other parts of the country. These are social and cultural processes with economic impacts on the sustainability of 'Z-goods' production and thereby rural employment opportunities and welfare.

Kenyon et al. (2002) found a strong correlation between lack of access to physical mobility and lack of access to social networks. The authors suggest that the use of information and communications technologies (ICT) could arrange for a new, virtual mobility, enabling an Internet-based accessibility as an alternative to physical mobility. Infrastructure should be developed to make 'virtual mobility' more accessible, also in remote rural areas, for instance by the provision of Internet access, like in Laos (The Economist 28.9.2002) and India (James 2003). A number of studies indicate that the availability of efficient ICT infrastructure has considerable impacts on economic growth (Mwesige 2003, Wei 1999). However, the extension of infrastructure and the expansion of information access are mostly private business concerns in developing, as well as developed, countries today. Therefore, government policy instruments to improve flows of information and reduce information market failures need to be fine-tuned to the operations and obstacles of private entrepreneurs at specific locations.

Geertz (1983) defined a sub-culture as 'practices and local knowledge'. There are probably substantial social and economic gains from linking ethnic groups and sub-cultures closer together for enhancing social capital, learning dynamics and competitive strength of rural businesses. Empirical research has documented that sub-cultural qualities like group cohesion, mobility and level of education have significant effects on social capital formation, and thereby also on the access to entrepreneurial resources (Jenssen and Kristiansen 2004). According to Putnam (1994: 157), the civic endowment of a society is more important than initial economic resources for achieving socio-economic development. In other words, the existence of voluntary associations, social networks, close-knit families, and norms of co-

operation and reciprocity are more important for development than finance or natural resources. The civic endowment is probably most efficiently enhanced by efforts in human capital development.

8. Conclusion

The New Order development strategy has been strongly criticised for its top-down approach. The elite in the centre took the important decisions, and people were mobilised to follow the current development doctrine rather than working on alternative paths to progress. Various linkage strategies were used to stimulate employment growth and multiplier effects and to speed up the process of 'trickle down'. Government programmes for linkage creation in factor and commodity markets have contributed to create significant new employment opportunities in rural areas but have lost credibility due to the misuse of power and comprehensive corruption, collusion and nepotism. Rural diversification supported by government programmes have encouraged growth in incomes and increased expenditures on a range of consumer goods and services, which in turn has stimulated new demands and linkage creation. However, most operators of rural non-farm businesses have neither received credit nor any form of training or other services from government-sponsored programmes. Processes of rural development have in many cases been facilitated by direct and indirect state provision for the rural elite (Hart 1986) and contributed to increased regional and social divisions and marginalisation of many ethnic groups. Government programmes have never been fully transparent and lack reliable evaluation of benefits related to costs.

Today, social discontent is widespread, tens of millions of people in rural areas lack proper employment and reliable incomes, and social conflicts and even wars between groups and villages are arising. The political and administrative systems have been recast, and there are increasing transparency and lively political debate and competition. There should be no way back to the authoritarian political system supporting the former economic development doctrine, and people are increasingly reacting against Western economic and cultural dominance. IMF and the World Bank and accompanying global market liberalism are seen as causes more than solutions to crisis, deprivation and problems in society today, and people search for economic and social alternatives.

We have suggested that government programmes for rural employment creation would benefit from a focus on information asymmetry and information market failures. Information market linkages should be developed by improved access to and quality of education and the advance of infrastructure for communication, mobility and socialisation. Information market failures could be reduced by increasing people's awareness and demand for information, knowledge and skills. Increased access to information should ideally give rural citizens the chance to choose between the modernisation path and subsequent competition with the urban and modern sectors on a more 'level playing field', or moving in another direction of development. People of various cultures should be given the opportunity to develop pride and consciousness sufficient to decide their direction of progress, not necessarily through market integration and price competition on standardised products. The agricultural sector and rural areas in general are important carriers of traditions and social relations that should be developed, not destroyed. There is a need to see rural societies more as banks of social and cultural capital and less as raw suppliers of commodities and labour power for the process of global modernisation. There is a call for a 'creative reintegration of economy, society and ecology' (Loomis 2000: 903), taking into consideration the value of traditions and cultural

diversity. People with various cultural backgrounds in Indonesia are already mobilising their social and cultural values to take the responsibility of their own development. The wisdom of Western development paths of growth and trickle down is being questioned but there is a need to support alternative development thinking and practice. Continuing existence of traditional cultures in rural areas does not guarantee sustainability or economic vibrancy (Jenkins 2000), but such cultures have qualities that improve the probability of sustainable ways of living and developing. Cultural diversity offers the country a variety of paths and linkages for progress. Mono-culture, on the opposite, only offers a loss of resources for household survival and for economic, social and environmental development.

The connection between dominant and subordinate ethnic and cultural groups and how to attack this unequal relationship has become an issue in development discussions in Indonesia. Peoples who have been marginalised on bases of ethnicity and culture increasingly demand a stronger say in their own development process and refuse to remain linked into an invidious relationship to more prosperous groups and regions. The pluralistic society is increasingly facing the question of how to deal with internal issues of social inequalities and cultural diversity and, at the same time, to build a shared civility among its different ethnic and religious groups. Multiculturalism and cultural diversity are terms with increasing relevance in the political debate. Rural development programmes need to become a politically charged arena in which relations of power and rule are reassessed and reworked. Linkages and rural employment creation strategies should aim towards mobilising the variety of local natural and cultural resources and encourage horizontal communication and economic transactions between regions and peoples. Horizontal linkages based on local awareness, initiatives and knowledge thus become an alternative to discredited top-down strategies and unrealistic political phrases of turning existing programmes into bottom-up development schemes.

More research, however, is needed on how to encourage and facilitate socialisation, information flows and linkage creation between villages and districts and across distance and borders of culture and ethnicity. We also see the need for more research on mechanisms to increase perceived value of locally produced non-farm goods in comparison with standardised, imported goods. One example is the mentioned valuing of batik clothes. Other examples include people’s preference of local fruit juice over Coca-Cola or other heavily marketed imported soft drinks, creating a market for local agribusiness instead of trade leakage. Analyses of preconditions and strategies for rural non-farm employment creation need to be culture and context specific. Local and informal economies must be studied on the bases of their traditions and social relationships (Portes 1994), which also brings in a need to cross borders between disciplines, for instance by drawing more on sociology and other social sciences in economic studies.

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APPENDIX 1: CURRENT INDONESIAN CENTRAL GOVERNMENT PROGRAMMES FOR LINKAGES AND RURAL NON-FARM EMPLOYMENT CREATION

Name of Program	Period of Operation	Geographical Coverage	Main Policy Instruments
Ministry of Agriculture			
1) P4K: *Proyek Peningkatan Pendapatan Petani-Nelayan Kecil / Proyek Peningkatan Pendapatan Pedesaan*, Phase III (Rural Income Generation Project)	1998-2005	19 provinces	-Savings and credits -Advisory services -Supporting and motivating self-reliant groups -Skills improvement and training in various activities to enhance income and identify business opportunities, esp. for women
2) *Program Pengembangan Sistem Agribisnis* (Agribusiness System Development Program) a) *Subprogram pengembangan Sumber Daya Manusia dan Lembaga Agribisnis* (Agribusiness Institution and Human Resources Development Subprogram) b) *Subprogram Pengembangan Jasa Penyangga Agribisnis* (Agribusiness Supporting Services Development Subprogram)	2001-2004	25 provinces	 -Entrepreneurship and skill training for the agribusiness actors -Provide agribusiness consultancy -Credits -Marketing facilities, such as market information and supporting infrastructure -Provide agriculture machinery services
Ministry of Industry and Trade			
1) *Program Pengembangan Industri Kecil Menengah Penggerak Perekonomian Daerah* (Empowerment of Small and Medium Enterprise as Regional Economy Activator)	2002-2004	28 provinces	-Help small industry to improve the production, business and technological capability **- Skills training and advice to improve management skill** -Facilitate access to financial capital -Marketing assistance, eg. market information and exhibitions -Facilitate collaboration with larger-scale government or private enterprises -Facilitate the development of new entrepreneurs -Provide test service for quality improvement

2) *Program Pengembangan Industri Kecil Menengah Pendukung* (Empowerment of Small and Medium Enterprise as Supporting Industry)	2002-2004	13 provinces	-Improving local component by assembler -Provide technical support and promotion, technology transfer, develop modern machinery -Provide credits -Provide access to international market through collaboration with internationalized enterprises -Market surveys and promotion
3) *Program Pengembangan Industri Kecil Menengah Berorientasi Ekspor* (Empowerment of Small and Medium Enterprise for Export Orientation)	2002-2004	18 provinces	-Capital assistance including credit insurance and export credit -Quality improvement such as design -Human resource development -Export market promotion -Collaboration with export enterprises -Machinery development
4) *Program Pengembangan Industri Kecil Menengah Inisiatif Baru* (Knowledge-Based Initiative for Small and Medium Enterprise)	2002-2004	9 provinces	- Socialization and promotion program with universities, computer software enterprises and the government to create new collaboration -Training and business guidance within the country and abroad -Credits for working capital and investments
Ministry of Cooperatives			
1) *Program Pengembangan Budaya Usaha Masyarakat Miskin* (Program on Enterpreneurship for Poor Communities)	2002-2004	27 provinces	-Skills development and training -Mentoring, supporting and technical assistance -Credit supply -Establish small finance institution
2) *Program Penciptaan Iklim Usaha yang Kondusif* (Program on Creating Conducive Business Climate)	2002-2004	27 provinces	-Socialize and give proper regulation concerning SMEs -Formulate the policy for SME's credit -Extensive training -Monitoring program
3) *Program Peningkatan Akses kepada Sumberdaya Produktif* (Program for Improved Access to Productive Resources)	2002-2004	27 provinces	-Facilitate the widening of information systems of SMEs -Capital formation -Provide market information and finding marketing distribution systems
4) *Program Perluasan dan Pengembangan Kesempatan Kerja* (Program for Developing Work Opportunities)	2002-2004	27 provinces	-Training and skills development -Credit supply

5) *Program Pengembangan Kewirausahaan Koperasi dan Usaha Kecil Menengah yang Berkeunggulan Kompetitif* (Program for Competitive Strengthening of Cooperatives and SMEs)	2002-2004	30 provinces	-Training -Credit -Monitoring and evaluation

Sources:
- Ministry of Agriculture: P4K brosur; Selayang Pandang P4K; Penumbuhan dan Penguatan Kapasitas Kelompok Petani Nelayan Kecil; Upaya Penanggulangan kemiskinan di Sektor Pertanian dan Perdesaan; Agricultural Development Program 2001-2004.
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- Ministry of Cooperatives: Bahan Penyususnan Nota Keuangan dan Rancangan Anggaran Pendapatan dan Belanja Negara Tahun Anggaran 2003; Laporan Departemen Koperasi, Pengusaha Kecil dan Menengah Tahun 1998/1999.

Appendix 2: List of abbreviations

BAPPENAS	*Badan Perencanaan Pembangunan Nasional* (National Development Planning Agency)
BKK	*Badan Kredit Kecamatan* (Sub District Credit Institution)
BPR	*Bank Perkreditan Rakyat* (People's Credit Bank or Rural Bank)
KCK	*Kredit Candak Kulak* (Candak Kulak Credit)
KIK	*Kredit Investasi Kecil* (Small Investment Credit)
KKPA	*Kredit Kepada Koperasi Primer Untuk Anggota* (Credit for Primary Cooperative for Its Member),
KKU	*Kredit Kelayakan Usaha* (Credit for Feasible Business)
KMK UKM	*Kredit Modal Kerja Usaha Kecil dan Menengah* (Working Capital Credit for Small and Medium Size Business)
KMKP	*Kredit Modal Kerja Permanen* (Permanent Working Capital Credit)
KPKM	*Kredit Usaha Kecil dan Mikro* (Credit for Small and Micro Business)
KPT-PUD	*Kredit Penerapan Teknologi Produk Unggulan Daerah* (Credit for Regional Advanced Product Technology Application)
KPTTG-Taskin	*Kredit Penerapan Teknologi Tepat Guna dalam rangka Pengentasan Kemiskinan* (Credit for Proper Technology Utilization for Poverty Reduction Program)
KUK	*Kredit Usaha Kecil* (Credit for Small Enterprises)
KUPEDES	*Kredit Umum Pedesaan* (General Rural Credit)
KURK	*Kredit Usaha Rakyat Kecil* (Business Credit for Common People)
P4K	*Proyek Peningkatan Pendapatan Petani-Nelayan Kecil* (Income Generating Project for Marginal Farmers and Fisherman)
Taskin KOPPAS	*Kredit Pengentasan Kemiskinan bekerjasama dengan Koperasi Pasar* (Credit for Poverty Reduction in collaboration with Market Cooperative)

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Agricultural and Development Economics Division
The Food and Agriculture Organization
Viale delle Terme di Caracalla
00100 Rome
Italy

Contact:
Office of the Director
Telephone: +39 06 57054358
Facsimile: + 39 06 57055522
Website: www.fao.org/es/esa
e-mail: ESA@fao.org