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Rolf Kappel

MONITORING ADJUSTMENT AND RURAL POVERTY Concept and Major Results of the Swiss Monitoring Programme in Cabo Delgado, Mozambique

1. Concept of the Swiss Monitoring Programme (SMP)

1.1 Mozambique's "Economic and Social Rehabilitation Programme" (ESRP)

The ESRP, implemented in 1987, is supposed to reverse the country's economic decline caused by the civil war and the ruinous economic policy followed over many years. As the agricultural sector provides about 60% of the country's GDP, and employs more than 80% of the labour force, this sector plays a key role in the ESRP. Contrary to previous agricultural policy priorities, where large state farms and systems of collective production were strongly supported, the new policy focuses on increasing private production of the many smallholders.

Despite country-specific development targets, the ESRP follows more or less the standard stabilization and structural adjustment scheme applied in many African countries. After several devaluations of the Metical (Mt), and the attempt to follow a tight monetary and fiscal policy, the international trade system is increasingly liberalized, the exchange rate is managed more flexibly, the allocation of foreign exchange follows market oriented procedures, and the tariff structure, as well as external debt and reserve management, are under reform.

At the same time, the domestic price system is liberalized, and administered prices (often minimum prices) are managed more flexibly. The fiscal system is under reform, with an explicit emphasis on strengthening government revenues, reducing subsidies, and increasing the allocation efficiency of public investment. The financial sector is liberalized to increase the efficiency of private capital allocation, and many state-owned enterprises undergo privatization. Rehabilitation concentrates mainly on the transport and communication infrastructure and the agricultural sector. Finally, special emphasis is put on social policy to reduce the adjustment burden of the poor. Many reform activities have been started, but virtually all of them are far from completion.

1.2 Purpose of the SMP

Although the theoretical and empirical knowledge about adjustment is growing permanently, it is not yet well understood how it affects the poor, and why the poor may not be able to take full advantage of the improved economic environment. However, many countries under adjustment are in need of measures which alleviate the possible adjustment burden of the poor, and which supplement the incentives created by adjustment policy. In short: the knowledge about preconditions and

consequences of adjustment in favour of the poor should be augmented, and quick measures should be taken which prevent or minimize an additional incidence and exacerbation of poverty.

A targeted monitoring of adjustment programmes can be seen as a necessary step towards a better understanding of the linkages between adjustment and poverty. This is the major goal of the SMP, implemented in the Province of Cabo Delgado, Mozambique, since 1990. This regional monitoring programme, which focuses exclusively on the linkages between adjustment and rural poverty, is designed to complement the nation-wide monitoring of adjustment stipulated by the World Bank within its Social Dimensions of Adjustment (SDA) initiative. The SMP is funded by and carried out on behalf of the Swiss Development Cooperation (SDC).

The SMP is designed to answer three key questions.

(a) The first question relates to the reforms of the exchange rate regime, of the price policy, and of the commercial system. It is well known that price incentives and the regular supply of consumer goods (incentive goods) through a liberalized commercial system represent key elements of orthodox adjustment programmes. Does price and trade liberalization improve the terms of trade of the rural poor and create incentives to increase production?

(b) The second question relates to the hypothesis that the ability of the rural poor to adjust may be limited by high transaction costs, by traditional production technologies with low levels of total factor productivity, and inelastic supply behaviour. Even if price and market reforms were successful in creating incentives to increase production, these structural bottle-necks could impede growth and adjustment. Do archaic production technologies and low investment, as well as limited capacities of production-related and trade-related infrastructure and services (transport, storage, water, communication, trade and financial services etc.), impede growth and adjustment?

(c) The third question relates to the much debated hypothesis that adjustment programmes may have a negative impact on the living conditions of the poor. As a consequence of tight fiscal and monetary policy, public investment and the financing of recurrent costs of infrastructure, health services, education, and rural extension services may be curtailed. On the one hand, this may impede the advance of basic needs satisfaction (or even reduce the deplorably low levels), on the other hand, constrained or reduced public expenditures may stand in the way of successful adjustment. Do the rural poor feel a significant adjustment burden resulting from the ESRP?

1.3 Adjustment and Rural Poverty: Some Analytical Issues

It is commonly agreed that adjustment policies simultaneously involve three levels of the economy:

(a) the macro-economic level, where major policy reforms are implemented;

(b) the meso-economic level, with markets and infrastructure as "transmitters" or "transformers" (in both directions) between the macro and the micro level;

(c) and finally the micro-economic level, where individual economic actors feel the impact of adjustment measures and respond to the incentives and constraints created by adjustment policy.

An assessment of the impact of adjustment programmes on economic actors in general, or on any subgroup of the population, must reflect all levels of the economy. It will be explained in this section how adjustment processes on these levels relate to the rural poor.

1.3.1 Macro Level: Expenditure Contraction and Switching

A straightforward way of analyzing adjustment on the macro level is to study the changes of the components of GDP. This analysis allows to check whether expenditure contraction or expenditure switching dominates the adjustment process, and which aggregates are affected by these processes. (Of course, the absolute changes can easily be transformed into change rates.) In addition, the changes in the aggregates of GDP can be related to the policy measures of adjustment, i.e. measures of stabilization, liberalization, private and public sector reforms, and privatization.

The equation for the changes of GDP-components follows from the GDP-identity and reads as follows:

(1.3.1.1) $\Delta X - \Delta M = \Delta Y - \Delta C_p - \Delta C_g - \Delta I_p - \Delta I_g$

Δ = Change in absolute values
X = Exports
M = Imports
Y = Gross Domestic Product
C_p = Private Consumption
C_g = Government Consumption
I_p = Private Investment
I_g = Government Investment

The changes in GDP show whether the adjustment process is (still) dominated by a contraction of the economy, which is normally to be expected during the stabilization phase, or whether the general target of establishing growth has already been achieved. Changes of exports and imports, of private and public consumption, as well as of investment explain how the overall process of adjustment has been generated.

The changes of the economic aggregates may serve as a reference to the analysis on the meso and micro level of the impact of adjustment on the rural poor. Total income, private consumption, and private investment can be compared with respective data for this population group. The comparison demonstrates whether the rural poor have done better or worse than the economic actors in general.

The analysis of public consumption and investment also provides a general reference for a more detailed analysis of the budgetary impact of adjustment. Particularly the expenditures for social services, such as health and education, can be compared against the changes of total public expenditures. And again these data may serve as comparative variables when social services for the rural poor are analysed on the meso and micro level.

The data on changes of the trade balance are not only interesting for evaluating the switching processes initiated by the exchange rate policy, by the policy of trade liberalization, and other policy measures. In many developing countries the rural poor contribute significantly to the production of tradables, particularly the production of agricultural commodities. Again the macro analysis may serve as a reference to evaluate the relative performance – and to some degree the benefits – of the rural poor in that respect.

1.3.2 Meso Level: Markets, Prices and Transaction Costs

In virtually all developing countries under adjustment markets have been heavily regulated and prices have been administered over many years. Misallocations, severe instabilities, and economic decline have been the result. Therefore, packages of liberalization and deregulation represent an important part of adjustment programmes.

Particularly the rural population has been discriminated against heavily through the administration of exchange rates and of domestic agricultural prices. Overvalued exchange rates, high inflation rates, low food prices, and high trade margins of public marketing boards in the agricultural sector have caused low and decreasing producer prices. As a consequence, growth of agricultural production was very low or even non-existent.

It is generally expected that the liberalization of prices and markets, as well as changes of exchange rate regime, will improve the terms of trade of farmers, and thus create incentives to increase agricultural production. In the same way it is expected that a liberalized and deregulated commercial system provides a regular supply of consumer goods in rural regions, where the shelves of the shops have been rather empty for many years. In that sense adjustment programmes are expected to contribute to the alleviation of rural poverty.

The role of transaction costs is, inter alia, well known in trade theory. Apart from domestic prices, world market prices, and the nominal exchange rate, it is transaction costs which determine whether commodities and services are tradable or non-tradable. Transaction costs, in this context, include transportation costs, trade financing costs, insurance costs, costs of finding trade partners, trade-related taxes and fees etc. The definition of tradables and non-tradables is given by the following equation:

(1.3.2.1) $P_x \leq P^* E/(1 + c_{tr}) < P_n < P^* E (1 + c_{tr}) \leq P_m$

P_x = Price of exportables
P^* = World market price
E = Nominal exchange rate
c_{tr} = Mark-up for transaction costs
P_n = Price of non-tradables
P_m = Price of importables

The equation shows that tradables and non-tradables are simultaneously determined by world market prices, the exchange rate, domestic prices and transaction costs. The higher the transaction costs are, the greater is the price band and the greater is the production of non-tradables. In other words: high transaction costs impede trade and the international division of labour.

The concept of transaction costs is not only of interest for the analysis of national production and international trade, but also for the analysis of local production, domestic trade, and the domestic division of labour. The concept of a price band, which simultaneously defines exportables, importables, and non-tradables, can also be used to define commodities which a (rural) household will sell, buy, or produce for self-consumption. As in the case of international trade, transaction costs play an important role.

Regarding production and trade in rural areas, the hypothesis is put forward that transaction costs are relatively high. As a consequence, rural households tend to concentrate on the production of commodities and services for self-consumption. Under these circumstances, the division of labour and trade activities remain low. The major reason of high transaction costs is assumed to result from the limited capacity and the bad accessibility of rural infrastructure and trade-related services.

Using the same notation as before, the following equation holds for this relationship:

(1.3.2.2) $P_s \leq P/(1 + c_{tr}) < P_n \leq P\ (1 + c_{tr}) \leq P_p$

P_s = Price of commodities sold
P = Market price
c_{tr} = Mark-up for transaction costs
P_n = Price of non-tradables
P_p = Price of commodities purchased

The message is simple. The lower the market price of a commodity and the higher the transaction costs to buy and sell, the higher is the household's propensity to produce commodities for self-consumption. In other words: low market prices, compared to the household's shadow prices, and high transaction costs impede the production of surpluses, cash crops, and the advance of the division of labour. Even if adjustment policy is successful in creating price incentives to increase agricultural production, high transaction costs may impede supply responses.

1.3.3 Meso Level: Social Infrastructure and Services

As mentioned before, adjustment programmes require a consolidation of public budgets which may result in a decline of expenditures and/or the introduction of special fees for social services. However, budgets are input variables, and the real impact of a budget cut, or the introduction of a fee, can only be observed on the meso and micro level. Therefore, the monitoring of social services on the meso and micro level is a precondition for drawing any conclusions about the real burden of adjustment regarding social policy.

1.3.4 Micro Level: Total Factor Productivity and Supply Elasticities

Rural poverty is inseparably linked with the low total factor productivity of the smallholder sector. The often archaic agricultural technologies of the smallholders are characterized by labour-extensive and land-extensive production, and a substantial increase of production and income would require (among others) a significant modernization of production technologies. However, experience shows that the technical modernization of the smallholder sector is a rather slow process. As a consequence, the potential for an increase of agricultural production in the short and medium run is limited. If the terms of trade of the rural population improve and if the supply of incentive goods increases, it is the low price elasticity of supply which may impede the growth of output (Figure 1).

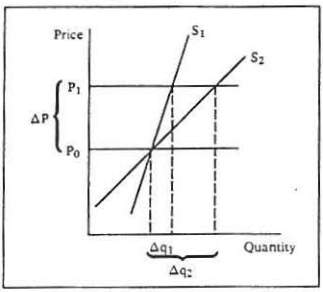

Figure 1: Price Incentives and Supply Responses

Of course, the supply elasticity is not exclusively determined by the technical and organizational ability of individual farmers to respond to price incentives and/or the supply of incentive goods. The individual ability to adjust is, inter alia, heavily influenced by the accessibility and the capacity of economic infrastructure (transaction costs) and – at least in the medium and long run – by the accessibility and capacity of social infrastructure. The access to functioning markets, for factors of production and consumer goods, and the access to public services, such as e.g. health, education and extension services, play an important role. Therefore the supply elasticity of the smallholders – or in other words: their ability to adjust – is determined by structural elements on both the meso and the micro level.

1.4 Methodological Approach and Scope of the SMP

Based on that very brief discussion of analytical issues, the focal points of a regional monitoring programme can be outlined as presented in Table 1.

Level	Monitoring Concerns	Policy Measures
Macro Level	Expenditure Switching Expenditure Contraction	Macroeconomic Reforms
Meso Level	Functioning of Markets Development of Prices	Market Reforms Price/Wage Reforms
	Economic and Social Infrastructure / Services	Improve Capacity and Accessibility
Micro Level	Impact of Adjustment Adjustment Capacity	Supplementary and Complementary Measures

Table 1: Stratification of Adjustment Policy and Monitoring Concerns

The methodological approach of the SMP represents a mix or synthesis of statistical and narrative methods for gathering and analyzing data. It can be divided into four overlapping modules which comprise the macro, the meso and the micro level (but with a strong emphasis on the latter two). Table 2 provides an outline of the major elements of the programme. The four modules can be summarized as follows.

(a) The macro-economic module concentrates on providing information about the adjustment process on the national level. National account statistics, balance of payments statistics, and the monetary survey serve as a major data base. By analyzing relevant economic aggregates, the macro-economic analysis will reveal to what extent a sustainable development process has been re-established, and how expenditure switching and expenditure contraction contribute to the adjustment process.

Variables	Level	Data Collection	Data Analysis	Data Sources	Frequency
Macroeconomic Module					
Expenditure Switching and Contraction	Macro-Level		Statistical Analysis	National Statistics	Annually
Price Module					
Consumer Prices	Meso-Level	Data Sheet	Statistical Analysis	Shops/Markets	Quarterly
Producer Prices	Meso-Level	Data Sheet	Statistical Analysis	Traders/Trade Agency	Quarterly
Availability of Cons. Goods	Meso-Level	Data Sheet	Statistical Analysis	Shops/Markets	Quarterly
Factor Prices	Meso-Level	Interview	Statistical Analysis	Traders/Trade Agency	Annually
Household Module					
Total Production and Income	Micro-Level	Questionnaire	Statistical Analysis	Households	Annually
Nutrition	Micro-Level	Questionnaire	Statistical Analysis	Households	Annually
Community Module					
Marketed Production	Meso-Level	Interview	Text Analysis	Traders/Trade Agency	Annually
Tariffs of Social Services	Meso-Level	Interview	Text Analysis	Teachers/Physicians/Health-Workers/Administration	Annually
Transport	Meso-Level	Interview	Text Analysis	Transport-Agents/ Traders/Trade Agency	Annually
Storage	Meso-Level	Interview	Text Analysis	Traders/Trade Agency	Annually
Communication	Meso-Level	Interview	Text Analysis	Traders/Trade Agency Administration	Annually
Finance	Meso-Level	Interview	Text Analysis	Traders/Trade Agency Banks/Administration	Annually
Extension Services	Meso-Level	Interview	Text Analysis	Households/Administration	Annually
Water/Energy Supply	Meso-Level	Interview	Text Analysis	Households/Administration	Annually
Housing Conditions	Meso-Level	Interview	Text Analysis	Households	Annually
Health Services	Meso-Level	Interview	Text Analysis	Physicians/Administration Health-Workers	Annually
Education	Meso-Level	Interview	Text Analysis	Teachers/Administration	Annually

Table 2: Outline of the Monitoring Concept

(b) While the macro-economic module covers national aggregates, the price module, as well as the community and household modules, refer only to the region where the programme is implemented. Simple data sheets are used to collect consumer and producer prices and to gather information about the variety and regular availability of important consumer goods. Price data are used to estimate the terms of trade development for the rural smallholders, and the availability of certain consumer goods indicates whether the region is sufficiently supplied with basic consumer/incentive goods.

(c) The community module primarily intends to cover meso level information about the functioning and the structures of commodity and factor markets and about the capacity and accessibility of economic and social infrastructure and services. As mentioned before, the impact of adjustment and the capacity to adjust are co-determined by structures and processes on the meso level. The information is obtained through semi-structured interviews with selected key persons, and is evaluated by text analysis.

(d) The household module primarily serves to collect information about production, income, and the general well-being of the rural population. The impact of adjustment on individuals, as well as their capacity or incapacity to adjust, are recorded with this survey. The data are collected with formal household questionnaires and are evaluated by statistical analysis.

1.5 Project Region and Survey Samples

The surveys and interviews are carried out in four districts of the Province of Cabo Delgado in northern Mozambique: Macomia, Mocimboa da Praia, Mueda and Nangade. In each district, the surveys and interviews are carried out in a "bairro" of the district centre (a small town) and in two villages (one village with good access to the district centre, and one rather remote village). In each "bairro" and village 20 families have been selected at random for the household interviews. The total sample size of 240 households is sufficient for trend estimates with acceptable error margins. With an average size of 6 persons, i. e. 3 adults and 3 children, the selected households cover a sample population of some 1400 persons.

The four districts have been chosen to cover a broad spectrum of ethnic variety as well as agricultural and other economic activities. Agriculture is the most important source of income in all districts, but other economic activities play an important role as well. Mocimboa da Praia is a coastal district with fishery being a considerable source of income. Farmers in Macomia are traditional producers of cashew nuts, a commodity with rather favourable prices on domestic and world markets. Mueda is an important regional center on the "plan alto", an area with large agricultural surplus production and very lively trade activities. In addition, the high plateau has a climate significantly different from the plains and coastal areas. Nangade is the most northern district, a very remote area, with difficult access to other district centres.

2. Summary of Results

It is not possible in this short paper to present in detail the results of the monitoring programme obtained since 1990. Only major results can be summarized.

2.1 Changes of GDP and Major Aggregates

Figure 2 shows the development of GDP between 1980 and 1993. It is obvious that the implementation of the ESRP in 1987 (after a first phase of tentative liberalizations in 1986) has reversed the downward trend in economic development. Without going into the details of the national accounts, the evolution of major aggregates can be described briefly.

(a) The decrease of GDP throughout the eighties was stopped and turned into respectable growth rates between 1987 and 1989. Afterwards growth was sluggish, particularly in industry and commerce. Much of this relative setback must be attributed to increasing insecurities caused by the then still ongoing civil war. In 1992 the country was severely affected by one of the worst droughts in its history, with a dramatic decline in agricultural production. Since the signing of the peace accord in the fall of 1992 the economy is recovering slowly. The economic growth rate of 3% recorded for 1993 represents a per capita growth rate of about 0.4%.

(b) While per capita consumption showed growth of 2 to 4% between 1987 and 1989, average consumption levels declined between 1990 and 1992, and reversed again in 1993 with a growth rate of about 2.7%. Despite these moderate improvements, the food security situation of the majority of the people is still very critical. Around 90% of commercialized food are provided through food aid.

(c) The ongoing process of liberalization, deregulation, and privatization has a visible positive impact on the development of the private economy, even if sector growth rates vary considerably from year to year. However, as in many other adjusting countries, private investment grows rather slowly. Apart from structural bottle-necks which impede private investment, it will take more time to re-establish the trust of the private sector in the country's peaceful and stable future.

(d) Public expenditures are growing permanently since 1987 while revenues lag behind quite drastically. The increasing deficit of around 30% of GDP between 1990 and 1993 is financed through grants, i.e. the government is still far away from managing sustainable budgets. However, considerable shifts in public expenditure have taken place in the course of the public sector reform. Most noteworthy is the permanently growing share of expenditures for health and education. The shares of recurrent expenditures have grown by more than 30% since 1987, and the shares of investment have more than tripled.

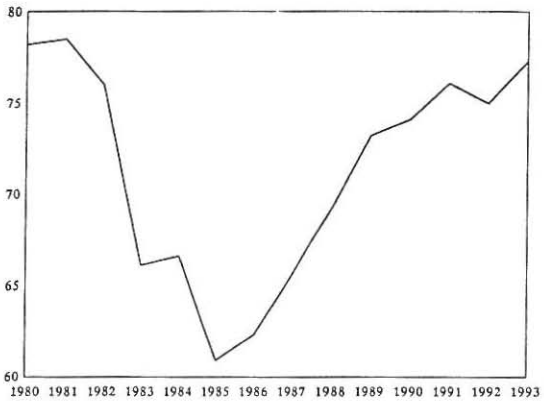

Figure 2: Gross Domestic Product (Mt Billions, 1980 Prices)

(e) Fiscal and monetary policy have not yet succeeded in bringing inflation down to acceptable levels. With the exception of 1991, when inflation was estimated at 33%, the average price increases were between 40 and 50% per annum over the last 6 years. To some extent, the country is caught in an inflation-devaluation spiral. Fiscal consolidation, a more disciplined monetary policy and a further de-indexation of the economy seem to be inevitable steps to overcome this dilemma.

(f) The exchange rate policy and a non-administrative system of foreign exchange allocation have resulted in a noticeable improvement of the trade balance. Export shares of GDP have doubled over the last 6 years, while import shares have grown by 50%. Nevertheless, the current account deficit being around 60% of GDP, the country depends heavily on foreign capital supply and measures of debt alleviation in the foreseeable future.

2.2 Economic Activities and Incomes of the Smallholders in Cabo Delgado

The major economic activities of the population in the region show the typical pattern of rural life. Virtually all households of the survey sample produce subsistence and cash crops (mainly cassava, maize, sorghum and rice), 24% have some animal husbandry, 18% harvest cashew nuts, 15% catch fish and 3% grow vegetables.

Crop production is still to a high degree subsistence production. On average, only about 20% of the harvest is commercialized, while the rest is used for self consumption and kept as seeds. About 60% of the average household cash income result from crop production. The other 40% are derived from a large diversity of farming, fishing and non-farm activities.

The large majority of the people in the region is extremely poor. The average annual per capita cash incomes, presented in Figure 3, of 16,000 Mt, correspond to an equivalent of 17 Dollars at the official exchange rate. The value for the average total annual income per capita (including income in kind), corresponds to 47 Dollars.

As income figures based on exchange rates are of very limited use under such circumstances, a simple survey indicator on nutrition may illustrate the situation. Every year, only 35 to 40% of the households were certain that their food stocks would be sufficient to feed the members of the household until the next harvest begins. Indeed, 35 to 40% of the households reported at the end of every year that they had encountered serious difficulties in feeding the members of the household.

The reasons given for that low degree of food security vary greatly. Bad weather conditions, large pre-harvest losses caused by plant diseases, animals, weeds, floods and fires, too much food commercialized, robbery, costly ceremonies and consequences of the war are prominent among the list of major reasons. The inability to overcome these problems is perhaps another good indicator for the extreme poverty of the people.

As is to be expected, agricultural production is characterized by archaic technologies, and no significant changes could be observed during the last 4 years. 80% of the households use their own seeds, and no fertilizers (natural or chemical) are applied.

Workers on the fields use only very simple tools: hoes, scythes, hatchets and rasps. On average, about 30% of the households invest in new agricultural tools every year, with an average sum of investment corresponding to about 7 Dollars. Less than 5% of the farmers receive extension services, and even that small amount of support is not considered to be of any help.

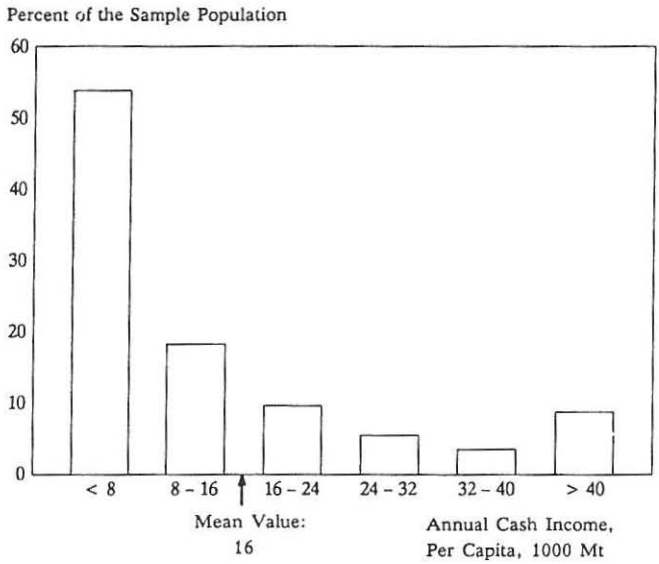

Figure 3: Average Annual Per Capita Cash Income 1990, 1000 Mt

In general, there appears to be no scarcity of arable land in the region. But of course the way to the fields gets longer the larger the population of a village or town becomes. On average it takes between 1 and 2 hours to the fields, but 4 hours and more are possible. In addition it is claimed that the fertility of newly acquired land is often significantly lower than the fertility of the land already cultivated.

There exists a rudimentary farm labour market in the region: about 15% of the households report that they hire workers for the labour intensive time on the fields. About 7% of the households report that they ask neighbours for support. Most of the hired people are remunerated in cash, although remuneration in kind still occurs.

The brief summary may suffice to document that the hypothesis of low supply elasticities of smallholders cannot be rejected. If the smallholders want to respond to incentives in an improved economic environment, they only have the opportunity to increase arable land and farm labour. And even the expansion of labour input is rather limited. The traditional division of labour puts an enormous amount of farm work and household work on the shoulders of women. It is not conceivable how they should be able to increase their work load. Progress in agricultural and household technologies, which would improve factor productivity, are currently out of reach.

Given the important role of agricultural production as a source of income, real annual incomes vary considerably depending upon variations in rainfalls and other environmental conditions. As mentioned earlier, more than 60% of the farmers claim that they suffer from significant pre-harvest losses caused by plant diseases, by animals and by weeds impeding the germination of the seeds. Therefore it is not possible to present reliable quantitative estimates of the development trend of real incomes.

However, the surveys document that no significant changes in the personal income distribution have taken place. As can be seen, the range of cash incomes is rather large and covers income differences of a factor of five and higher. Not

surprisingly, the inequality of incomes decreases if the subsistence income (in kind) is taken into consideration (Figure 4). However, it must be emphasized that the large majority of the households represented in the sample belong to the poorest stratum of the population in Mozambique. Hence, it may not be concluded from these data that adjustment does not affect the personal income distribution in general. The new wealth of the traders, correctly perceived by the population and mentioned below, is only one example to indicate that the ESRP has an impact on the distribution of income and wealth.

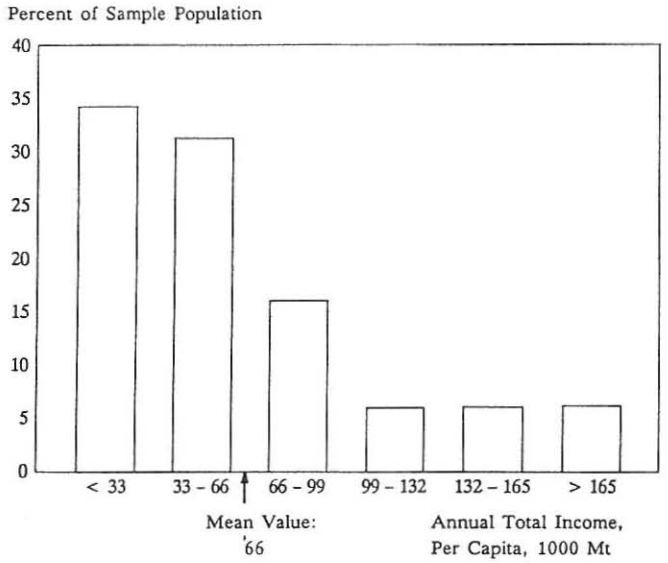

Figure 4: Total Income 1991, 1000 Mt

2.3 Terms of Trade of Smallholders and Perception of the ESRP

As mentioned before, one of the main targets of the ESRP is to create price incentives to increase agricultural production. Table 3 shows that administered increases of the producer prices (after 1990: minimum prices) for the most important agricultural commodities of the region have been very high. Nevertheless, the nominal price increases were not sufficient to cover the price increases of consumer goods.

Table 4 shows that the bivariate terms of trade of the farmers (based on an unweighted producer price index calculated from Table 3) fell dramatically for some of the most important consumer items and, at least until December 1993, never really recovered. Exceptions from this drop of terms of trade fall into two categories. On the one hand, the prices of some consumer goods are still administered at low levels. Salt and cooking oil fall into that category and are often not available on markets (consumer rationing instead of price-clearing markets). On the other hand, the terms of trade improvements for clothes refer only to second hand goods supplied through aid programmes.

Commodities:	1986	1988	1990	1991	1993
Maize	13	65	126	190	425
Rice	16	75	167	260	508
Sorghum	12	65	109*	150*	300*
Mafurra	8	35	70	120	240
Mandioca (dry)	4.5	40	59*	80*	140*
Beans (1. Quality)	23.5	150	295	400	1050
Beans (2. Quality)	15	105	184	270	710
Groundnuts	20	150	295	440	990
Cashewnuts	10	165	380	500	1100
Sunflower	15	75	150	200	540

* Free Prices

Table 3: Producer Prices of Farmers (1986 – 1993, Fixed or Minimum Price, Mt per kg)

$$\text{Terms of Trade of the Farmers} = \frac{\text{Producer Price Index}}{\text{Price Index of Consumer Good}}$$

Consumer Goods:	Dec. 1986	Sep. 1988	Dec. 1990	Dec. 1991	Dec. 1993
Sugar	100	48	35	20	22
Salt	100	462	143	168	130
Cooking Oil	100	162	83	108	107
Milkpowder	100	45	63	33	19
Cookies	100	62	39	47	38
Soap	100	79	50	34	35
Matches	100	28	19	15	24
Batteries	100	26	13	17	37
Capulanas	100	52	67	65	72
Shirts (second hand)	100	262	143	200	217
Trousers (second hand)	100	336	250	307	342
Blouses (second hand)	100	127	200	180	217
Shoes (new)	100	163	16	7	7
Plates	100	155	84	97	98
Cups	100	161	125	141	138
Radios	100	204	111	55	57
Petrol	100	57	14	8	6

Table 4: Terms of Trade of Famers (Selected Consumer Goods, Dec. 1986 – Dec. 1993)

All in all, there can be no doubt that the majority of prices of consumer goods has increased more than the fixed or minimum producer prices. This is a strong indication that the terms of trade of the farmers have deteriorated after the implementation of the ESRP. But this conclusion must be taken with care.

Before 1987 the prices of most consumer goods were administered at very low levels (in real terms), but the commodities were normally not available in the shops. Low prices and the widespread rationing system had dried out the formal supply routes. Commerce flourished only on black markets at much higher prices than in the formal economy. However, information about absolute and relative prices of the shadow economy at that time is very limited. Based on some scarce information on black market operations it may be concluded that the terms of trade losses are not as large as indicated by the above comparison of current prices of a largely liberalized system with administered prices of a rationing system. By all means, it is safe to conclude that the terms of trade of the farmers have not improved after the implementation of the ESRP. This policy goal has not yet been achieved.

Virtually all farmers acknowledge that the supply of consumer goods has significantly improved and has become much more reliable. This is considered as being a positive impact of the liberalization package under the ESRP. The other side of the coin are higher prices for these commodities, and this ambiguity is well reflected in the overall perception of the ESRP. Taking both aspects into consideration, 53% of the farmers feel that their economic situation has improved after the implementation of the ESRP, 23% feel that their situation has deteriorated, and 24% hold the opinion that their economic situation has not changed at all. There is an unanimous consensus among the farmers that the traders and the political class are "the big winners" of the reform.

It is for sure that the liberalization package of the ESRP, and some of the food aid operations of international donors, have boosted commercial activities of the traders. Growing truck fleets, renovated shops, new warehouses, and increasing personal wealth indicate good business and growing profits. In addition, it must be taken into account that rural traders operate in regional quasi-monopolies with virtually no competition. In practically all villages there exists only one shop, and even if there are two or more shops in a village or town, competition is apparently very low. Most of the traders are of the same ethnic descent, and their solidarity, their family links, and their professional superiority in the trade business makes them behave like price setters in a cartel. Bearing in mind that the traders also hold a monopolistic position when it comes to buying the harvest from the farmers, it becomes obvious that without initiating increased competition political actors may find it difficult to enforce an improvement of the terms of trade of the farmers.

2.4 Markets, Economic Infrastructure and Commercialization

While the liberalization package has undoubtedly increased (formal) market transactions, the smallholders' access to markets is still hampered by a deficient economic infrastructure. This is particularly true for remote villages where bad roads impede economic activities in virtually every aspect. The opportunities of selling commodities, of purchasing agricultural tools, intermediate products and consumer goods are still very limited. After four years of observation, it is quite striking to see the differences between these remote places on the one hand, and the district centres and well-connected villages on the other hand, where the economy has become very lively.

Despite these improvements in the regional centres of economic life, the generally bad road system, which was scarcely maintained during the civil war, is a consider-

able barrier for increasing economic activities. Transportation and information costs are high and have a significant impact on all markets. A fast rehabilitation of the road system would certainly reduce transaction costs, and would support producers and traders in responding with growing production and commercialized surpluses to the liberalized environment.

A rather limited transport and storage capacity for agricultural commodities is another bottle-neck on the meso level of the region. Over the last four years, two bumper harvests could not be smoothly commercialized, because, inter alia, the transport and storage capacities of private traders and the public marketing organization AGRICOM were insufficient. In some villages post-harvest losses were quite considerable because the harvest had to be stored under completely inadequate conditions.

The delays in commercialization were also caused by severe liquidity shortages, particularly in the years with exceptionally good harvests. The credit line of the (then still very active) public marketing organization AGRICOM was insufficient in those years, and AGRICOM was not able to pay on time for the inflow of commodities. As a consequence the traders ran into liquidity problems themselves and delayed their purchases from the farmers. The problem resulted not only from policy errors in the credit allocation on the macro level, but also from the very deficient finance sector in general. Only bank branches in the capital of the province are able to handle trade credits, and even these central offices must operate on the basis of extremely weak credit and bankruptcy regulations.

Existing and applied economic regulations do not promote the development of small and medium enterprises, but represent a major obstacle to start or extend activities of this sort. Many farmers have long understood that commerce and trade craft offer interesting business opportunities, but economic regulations often inhibit any attempt in that direction. Apart from the virtually non-existent access to formal credits, administrative barriers such as dozens of forms which have to be filled in, advance payments of fees and taxes, and sometimes completely arbitrary and harassing "regulations" of local authorities impede entrepreneurship on all levels. Economic activities are suppressed or forced into the illegal shadow economy. Of course, this is an open door for blackmailing the entrepreneurs who take the risk to operate under these circumstances. Deregulation, a catchword which is often quoted without specifying what it exactly means and what is expected from it, would definitely contribute to promote the development of the small and medium enterprise sector in the region.

2.5 Social Infrastructure: Health and Education

The health service institutions in the region are primary health care facilities, so-called "health centres" and "health posts". Health centres are small hospitals and are located in the district centres. The staff can accomplish diagnostic and curative work for a respectable number of diseases and even perform small surgical operations. The health posts are (at best) staffed with perhaps three to five persons, typically some nurses and a midwife. However, in many cases only one health worker is available who has got some very basic training. Apart from being able to treat a few types of diseases with medicine, the nurses and health workers have to decide whether a patient must be transferred to one of the next health centers.

A major problem for both health centres and health posts is the supply of medicine, medical material and equipment. Most institutions suffer from an irregular supply, and practically all staff members claim that regular vaccination campaigns are not possible. In addition, payment of the medical staff is often delayed up to three months.

(A special case are the health workers who are not on the payroll of the ministry of health; they get only paid by the patients on a voluntary basis.)

A much debated measure of the ESRP is the introduction of consultation fees and other charges. Previously, Mozambique's health system was, with a few exceptions, entirely free of charge. Of course the question arises whether the introduction of fees reduces the availability or accessibility of health services for the poor. Without being able to provide a definite answer (and a tentative answer only for the 4 districts in Cabo Delgado), there are some indications that consultation fees and other charges are not the major problem of adequate health services for the poor.

The fees vary between 100 and 500 Mt per consultation, a rather small amount even for the poor. In terms of staple food this is the equivalent of about 1 to 3 kg of cassava. The costs for a hospital bed vary between 50 and 500 Mt per day. However, there is obviously much leeway to adjust the charges to the patient's ability to pay, and payments in kind are also accepted. Moreover, it must be concluded from several interviews that patients who are seriously sick and absolutely not able to pay for consultations, hospital beds, or some medicine they need will not be rejected and will receive the treatment free of charge.

Given the small amounts of the fees and charges, and the small or even negligible contribution to cost recovery, it is legitimate to ask for the purpose of this measure. There can be no doubt that the main purpose of the fees is their screening function, i.e. they prevent too many people from (over-)utilizing very scarce resources in cases where services are not absolutely necessary. Economists are quite familiar with the fragile and questionable supply of "free goods", and there is ample evidence that public systems where goods and services are supplied free of charge will be over-utilized and run into the danger of collapse.

The hypothesis that the fees do not impede the access of the poor to health services is, inter alia, supported by two findings: the expensive consultation of traditional healers and the purchase of expensive medicine on the black market.

Depending on the seriousness of the disease, the costs of a treatment by traditional healers vary between 500 and 20,000 Mt and may well exceed that upper limit. This indicates a rather high willingness and ability to pay, and frequent consultations with traditional healers were confirmed in many interviews time and again. In the same way, the willingness and ability to pay for medicine seems to be quite high. In every town or village it was confirmed that "sophisticated" medicine, like antibiotics, are often bought on the black market. Given the chronic supply difficulties of the official health system, it is not surprising that black markets flourish. Apart from the positive aspect of that supply channel there is of course the negative aspect of inappropriate or even dangerous self-medication. There are strong indications that many people tend to ask for "fashionable" medicine, if possible injections rather than pills, even when their ailments are harmless.

It is obvious that an extension of the personnel and the technical capacities of the primary health care system, as well as an orderly supply of medicine and medical material, would be a decisive improvement for the health situation in the rural areas. However, despite the increases in public expenditures for health mentioned above, the supply of health services and drugs tends to deteriorate in the region. This indicates a fundamental problem of priorities in the national health policy, and has nothing to do with the adjustment programme and its implications. Compared to this fundamental problem, the screening fees of the official health care system are of minor importance.

The level of education in the region is very low. Only 30% of the adults have ever attended school, and on average they did not get beyond the second class. In about

half of the villages and towns of the sample alphabetization programmes exist, but not more than about 1% of the adults are enrolled in these programmes. In many villages the programmes have been discarded.

The educational situation of the children is more favourable. About 60% of the children between 7 and 15 have attended school or are currently enrolled; the actual enrollment rate is around 40%. However, the drop-out rates are high. School statistics speak a clear language. From the first to the second class the number of students decreases by about 40 to 50% on average, from the second to the fifth class it reduces again by 40 to 50%. In other words, only 25 to 30% of the pupils make it to the fifth class.

The teachers cite the following reasons for the high drop-out rates (frequency in descending order):

(a) Lack of money of the parents or increasing costs for school material.

(b) The parents are not aware of the value of education or the need for education.

(c) Many children, particularly the older ones, have to work on the fields for some time of the year or have to do some commercial business. Even the younger ones often accompany their parents to the fields when there is no adult in the village to take care of them during the day (or during the weeks when the parents live in small houses on the fields).

(d) The school buildings are in a very bad shape and not "attractive".

(e) Maximum class size limits the enrollment of students for the first class.

(f) Religion and traditional rites may impede regular school attendance, particularly of the older students, who are considered to be adults after they have gone through certain initiation rites.

As in the case of health services the low school enrollment rates and the deficiencies of the school system are primarily a fundamental problem of underdevelopment. The only negative impact of the ESRP, which may be of some importance, is the price increase of school material caused by the introduction of a cost recovery scheme for school books and the liberalization of commerce. However, it has been reported time and again in many interviews that the majority of students did go to school without schoolbooks, notebooks, and pencils long before the ESRP has been implemented. The irregular supply of schoolbooks to shops in the small towns and villages seems to be an old problem of policy priorities and logistics.

2.6 Final Remarks

It should be emphasized again that only part of the results of the monitoring programme could be summarized in this paper, and that virtually nothing has been said about conclusions drawn and recommendations given to the national and the regional administrations. Nevertheless, at least two things should have been clarified.

First, the adjustment programme implemented in Mozambique has contributed to improve the economic environment for rural smallholders, but progress is quite limited. There is a long way to go to achieve the main goals of stabilization and structural adjustment, and in this sense the results summarized in this paper may only be interpreted as an intermediate assessment. At the same time it is obvious that the smallholders' ability to adjust, i.e. to fully utilize the improved economic environment, is rather small. Without national support and/or technical assistance through development aid, the growth effects of adjustment, and the potential of alleviating rural poverty, will remain small. Financial aid, programme assistance, and technical assistance must be targeted and coordinated within one conceptual framework.

Second, it seems worthwhile to set up regional monitoring programmes which help to understand the interaction between the macroeconomic, the mesoeconomic and the microeconomic level. Of course, regional programmes cannot substitute national surveys. But they have the advantage of producing quick and up-to-date results compared with the cumbersome national surveys which can be conducted only every 5 years or so, at best. From a policy point of view, "quick and dirty" results from one or several regional monitoring programmes seem to be an interesting and efficient complement to the effort of large, costly, and time-consuming nation-wide monitoring programmes.

Abstract

The paper summarizes the concept and major results of a regional programme monitoring the linkages between adjustment and rural poverty in Mozambique. While liberalization has considerably improved the regular supply of consumer goods in rural areas, agricultural price policy has not yet succeeded in improving the terms of trade of the farmers. No significant changes in real incomes, and the income distribution, of the poor smallholders were recorded. High transaction costs and low supply elasticities impede the growth of agricultural production. Social services are structurally deficient, but a significant negative impact of adjustment cannot be established.

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Rolf Kappel, NADEL, ETH-Zentrum, CH-8092 Zürich