How to induce development in Africa?
The case of Mozambique

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This question is asked every day by African politicians, international agency specialists, workers in non-governmental organisations, and officials in cooperation ministries across the countries in the North and academics throughout the world. Despite the $500 billion invested by African countries and a further $200 billion borrowed over the last four years, Sub-Sahara Africa is the continent plagued by war, where military coups are common, the natural disaster is fatalism and poverty and economic stagnation are the daily reality of millions and millions of citizens. With the backing of the world's rich countries, the International Monetary Fund has joined the World Bank in working with African governments to produce strategies and programmes to reduce absolute poverty. The United Nations finds an echo in international capital when it speaks of the 2020 or 2025 agendas where intelligent partnerships aspire to give the world a new world. Yet the question persists: how to induce development? How to ensure that the investments to be made will have a multiplier effect, so that development becomes endogenous to the continent and the world no longer has to appeal for solidarity and international assistance whenever we are faced with constant, uninvited images of starving children, women dripping with sweat, men armed to the teeth and old people with an empty gaze that transcends death.

Galbraith said that whatever we believe in economics is deeply rooted in history. Only when we understand these roots can we comprehend the present, and at the same time its projection into the future (Galbraith, 1987). So in order to identify the most appropriate strategy for the development of Mozambique, we must go back in time to find out what the past can teach us, and we must study the present to find out what it has in a store for us.

In this paper we will start by looking at the evolution of theoretical reasoning on economic development, as seen in the history of Mozambique. We shall then show what a return to the empirical evidence has revealed about concepts and about models of the economic and social behaviour of rural families, and how this evidence has enriched assumptions that are usually taken for granted. Finally we will present a normative model developed by *Cruzeiro do Sul*, with which I work, and in the process attempt to answer the question that constitutes the title of this paper - how to induce development in Africa, the case of Mozambique.

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1. Responses to date

Dualist models

When Mozambique became independent the predominant influence was the *modernisation paradigm* and its related *dualist model*, which dominated theoretical output in Development Economics. Dualism between the traditional and the modern, the rural and the urban, agriculture and industry are just some of the versions that essentially defended investment in a *modern* sector with a market economy fed by the surplus labour force from another sector, the *subsistence economy* sector (Lewis, 1955; Meier, 1989).

This was the time when the country threw itself into building communal villages. For some people the communal village was a place where peasants unleashed their creative initiative, through *self-reliance*. For others, however, the function of communal villages was to reproduce labour for state farms that would bring about capital accumulation for the expansion of the economy's industrial sector. Possibly due to the country's financial difficulties following sanctions against Southern Rhodesia, this second vision eventually prevailed. In the allocation of the scarce resources available, priority was given to state farms. In the countryside, in real terms peasants received less and less for what they produced or for selling their labour to state farms. Essential consumer goods such as oil, salt, cloth, shoes and even agricultural tools were rare and when they did appear they were the object of speculation and black market operations. (Verschuur,1986).

Irrespective of one's interpretation or opinion on this very recent period in Mozambique's history, the immediate reason why concentrating people in communal villages failed was much simpler than might be supposed at that time. As villageisation was not accompanied by the dissemination and adoption of new techniques and technologies, after just a few years the soil became less and less fertile, firewood and building materials were further away, wells dried up. The endogenous institutions that managed relations between communities and the environment were weakened, such that local knowledge accumulated over generations only persisted in the memory of old folk and was eventually lost (FAO, 1978).

In the outside world too, Economic History has shown that the application of dualist models to agricultural economies in developing countries has suffered a series of setbacks. These include: (i) as rural - urban migratory flows exceeded the supply of jobs the *subsistence economy* became less and less able to perform its social reproduction function, and the demand for modern sector output tended to fall; (ii) despite a rising per capita GDP, as wealth was concentrated in an insignificant fringe of society in real terms this meant declining annual per capita income; (iii) the assumption that there was surplus time that could be applied in mechanised farming did not materialise, because the agricultural calendar and gender relations within the family production unit meant that periods of so-called free time did not coincide with periods of peak agricultural activity; (iv) women were increasingly marginalised and relegated to maintaining the subsistence economy, while men sought employment in the modern sector in towns. (Arndt, 1987)

Productivist models

When the application of dualist models failed, the notion that development required the existence of wealthy owners of modernisation and poor suppliers of labour was questioned. It was replaced by the argument that the poor could also produce development. All that was needed was to increase productivity and the market would ensure that the output had a multiplier effect. This was *the paradigm of poverty* that provided the basis for the *productivist models* that produced, among others, the green revolution in some Asian countries (Myrdal, 1968; Meier, 1989).

In the past Mozambique, too, invested in increasing productivity among small farmers as a way of increasing wealth. The first experiment in special villages took place in the mid-thirties in Cheringoma. It was decided that these villages should be sustainable economic and social units with access to irrigated land in the form of cooperatives. For structural reasons inherent to the colonial system, these villages were granted to Portuguese farmers recruited in Portugal especially for this purpose as happened, for example, in the case of the Limpopo *colonato.* In the forties *ruralatos* were conceived for Mozambicans, areas where they would practice rain fed agriculture with much lower production costs than the *colonatos*. But the *ruralatos* never materialised and in the late fifties people started to talk of *aldeamentos,* involving definitive settlement in special areas using technologies that would replace cultivation based on burning and plot rotation. The idea was to achieve what was by then being called "community development", population resettlement with the aim of completely monetarising their economy.

However, in 1973 the Portuguese Government concluded that the *colonatos* were far too expensive for the expected results, that the cost of transporting small Portuguese farmers from Europe to Mozambique was very high and that the investments in infrastructure produced extremely slow returns. So the Fourth Development Plan recommended an end to the *colonatos* and any other form of concentrating people in order to provide them with technical assistance. As an alternative, it suggested an emphasis on the technological transformation of Mozambican farmers. This would require Mozambican peasants being located along classified roads close to rivers while private farmers, predominantly Portuguese, should be allocated marginal land (Negrão, 2001).

As in Mozambique, so in other parts of the world the application of productivist models encountered numerous problems. These included: (i) their heavy public investment requirements for research and the dissemination of new techniques and technologies increased inflation; (ii) the marginalisation of women and the poorest families in the distribution of income due to the pressure to repay loans received in the form of inputs of technological packages; (iii) an uncontrollable rise in rented land due to the accumulation of debts by the poorest; and (iv) permanent tension between the state and the market about the determination of the prices to be charged for agricultural *inputs* and paid for agricultural *output*. (Arndt, 1987)

Protectionist models

The poor results meant that the notion that the market *by itself* would cause a multiplier effect started to be questioned in the preparation of theory on Development Economics. The Marxist interpretation of economics, hitherto a monopoly of socialist countries in their Soviet and Chinese versions, spread to Latin America and Africa. There Marxism gained new life with its critique of the international market and unequal terms of trade. Class relations were analysed on a world scale, giving rise to the *paradigm of dependence* that resulted in the protectionist models of the 1970s-80s (Prebish, 1984; Baran, 1957; Amin, 1973). Radical protectionist models defended closing the country to the international financial market, directing development towards the domestic market and rapid industrialisation through capital accumulation derived from agriculture. Softer protectionist models, while less radical on foreign investment and the consequent need for international parity of the currency, nevertheless argued that the terms of trade for the agricultural output of the Third World and the industrial output of the Centre Countries were so unfavourable to poor peripheral countries that the only viable alternative was to replace imports from the North with national industry (Meier, 1989).

Mozambique also sailed in these waters. In 1978 the country started to prepare its Indicative Prospective Plan, a mega-plan with the pretension of proclaiming the end of underdevelopment in ten years. The economy started to shows signs of growth, although still far from the production peaks in the final years of colonialism. Nevertheless, economic growth was evident. The fisheries, transport and energy sectors recorded substantial growth rates and the urban elites started to believe that it was indeed possible to end underdevelopment in ten years. However, their faith was in vain and in a short time there was widespread discontent.

Economic growth was achieved at the expense of urban consumption and the living conditions of the peasants. Urban consumption fell to levels never seen before; rationing was introduced, accompanied by special shops for leaders. Despite the rhetoric about cooperativism, the government support it received was minimal compared to that given to the state sector. The terms of trade between the urban industrial product and the rural agricultural product were clearly unfavourable to the latter (Machel, 1981).

In the mid-eighties the feasibility of protectionist models started to be questioned, not just because they were unable to satisfy the growth needs of the countries where they had been introduced but also because, contrary to predictions, the gap between the poor and the rich got wider, the middle class was eliminated and there was a flight of capital. The various limitations identified include: (i) import controls tended to inflate costs; (ii) protectionism only benefited some and was rarely translated into local investments; (iii) protection for industry tended to lower the purchase price of goods produced by rural families; and (iv) the prices of the protected agro-industrial products of countries in the South were unable to compete with the subsidised prices of conventional crops controlled by the North (Arndt, 1987).

Neo-liberal models

The difficulties associated with the application of protectionist models fed neo-liberal theories around the rehabilitation of the *market paradigm*, where the main determinants of economic growth are the population and savings. The *neo-liberal models* of the late eighties and the nineties were based on this paradigm. Under the slogan "get the prices right and international markets will be conquered", there was structural adjustment, private ownership of the means of production was consolidated and capital was globalised. It was believed that there would be economic growth within a few years and that this would slowly give way to development where the social conditions of citizens would eventually improve. (Friedman, 1980; World Bank, 1989; 1990).

However, as our own recent experience has taught us, things did not turn out as predicted by the models. Poverty did not fall at the desired pace and in many cases there was not even the prospect of its eradication. Social unrest grew and crime rapidly took over the towns, increasing risk and thereby reducing the much-needed investment.

A recent case study in the north of Mozambique found a significant difference between per capita GDP and gross household income, that can be considered an indicator of the difference between growth and economic development. For example, in 1998 per capita GDP was 176 USD (MPF, 2000) while gross income indicated that some 70% of the population was living on USD 64 per capita a year (USD 0,18 per day) and only 4% of the population had a gross income above USD 1.00 a day. The gap between the relatively rich and the poor has grown: the rich have a gross income that is ten times higher than the poor and they are 17 times fewer than the poor. Under such circumstances it is difficult to envisage capital accumulation at the level required to escape from poverty.

The above-mentioned study concluded that there was little likelihood that orthodox theory on financial liberalisation, based on the principle of mobilising savings in the traditional sector to create investment in the modern sector, could be applied in the current situation in the northern region of the country. Firstly, because the profits from capital flows from the *traditional* to the *modern sector* are channelled to offshore financial markets and secondly, derived from the first, because the tendency for interest rates to rise produces a fall in effective demand and thus in output. (Cruzeiro do Sul, 2000)

The main difficulties encountered in applying neo-liberal models are the following: (i) contrary to the theoretical assumption, in the real world markets are imperfect, incipient or pure and simply do not exist; (ii) the *"invisible hand of the market"* itself causes externalities, particularly for women (due to the opportunity cost of their work time) and the environment (due to diseconomies of scale); (iii) there is a tendency for savings to be transformed into market capital and internationalised, rather than into productive investment within the country; (iv) rural families do not have access to sufficient savings to enable them to choose options based on the economic rationality of market signals.

Epistemological rupture

The end of the 20th century saw signs of an epistemological rupture in the production of development theories. The old paradigms no longer provided a satisfactory answer to the problems that were arising and the successive application of models imposed from outside had consequences for a development process that was intended to be endogenous to societies and lasting.

Historical time is becoming shorter; the linear causality of models comes up against multi-causal complexity; correlation increasingly requires the analysis of inter-action; the assumption about the perfect market is constantly being confronted with the reality of incipient and even non-existent markets; the *hedonism* (the unrealistic abstraction of the economic man) that assumes development in equilibrium is opposed by constantly rising returns at unpredictable levels, an holistic approach should be added to analytical separation; the exclusivity of the logical-deductive structure of theoretical reasoning starts to admit non-logical theoretical thinking in the construction of assumptions, premises and evidence; and individual rationality is confronted by the rationality of the social unit i.e. a collective rationality that is reflected in a wide variety of institutional frameworks.

The epistemological rupture in the production of knowledge on development has created a theoretical vacuum that has led international agencies, donors and governments to an excessive empiricism in their activities. The manifestations of this empiricism include: (i) the cost of money in the country is systematically ignored on the unverifiable assumption that the market will take care of it; (ii) the presumptuous application of logical frameworks, problem trees and participatory diagnoses takes precedence over absolutist positivism – as only deduction is considered valid the role of induction and theory are disregarded and results are measured by output rather than by prevailing dynamics; (iii) the insistence that in order to reduce poverty rural units must increase supply because it is assumed that demand is perfectly elastic; (iv) instead of being considered flexible mechanisms open to change, institutions are equated with the legal framework approved by national parliaments, where a sector approach focusing almost exclusively on ministries demonstrates an ostrich-like naivety; (v) the western model of representative democracy is imposed as being qualitatively superior, without taking into account endogenous practices of participatory democracy that exist to some extent throughout the country.

Given the theoretical limitations with regard to strategy, the development concept has ended up being adjectivised, has ended up as a kind of checklist for development professionals. The most common adjectives on the list of not-to-be-forgotten key words include: (i) *Equitable Distribution* - from the start, foundations must be laid for economic growth to be accompanied by development; *Gender Balance* – ensuring a woman's autonomy in decision-making processes within the family; *Regionally Sensitive* - differences must be cherished as synonymous with social justice, regions far from capitals must not be at a disadvantage or subordinated to urban centres; on a *Human Scale* - recognition of the rights of each person and of respect for the right to differ is essential if development is to count on democratic participation by everyone in the exercise of power; *Culturally Decentralised* - decentralisation must empower local institutions, in a process where management is enriched by diverse cultural contributions that produce lower transaction costs; *Planned in a Participatory Manner* - planning the use of resources must involve the inter-active participation of those affected by the decisions; *Sustainable* - the use of resources must not bring about their declining per capita utility over generations.

2. Going back to the Empirical Evidence

In the production of scientific knowledge there is growing recognition of the limitations of the positivist analyses and linear systems that have accompanied developmental theory. The unpredictable, *chaos*, non-linear complexity must be taken into account when models of activities are devised. We believe that positivism, the most refined form of which is *structuralism*, has reached the limits of its ability to foresee and predict the intended outcomes. Non-linear complexity must become a characteristic feature, not an exception, inside the black box. Consequently, normative models must incorporate the possibility of change over time, and must thus contemplate the real world's non-measurable variables; they must contain the unpredictability factor so that outcomes can feed interactively into the country's human, physical, financial and natural resource investment options.

There are many implications of a definition of this kind, but two are fundamental. The first is the adoption of a holistic approach where the set of economic (productivity and growth), environmental (eco-systems and bio-diversity) and social (identities, power, access etc.) aspects are more than just the summation of the sectoral components of the national accounts. The second is the need to understand the historical roots of African rurality, where decision-making processes governing the allocation of labour, land and capital involve economic units where production, consumption and distribution are inseparable functions, and thus cannot be contemplated separately for analytical purposes.

The return to empirical and historical evidence has made it possible to revise some concepts, model the economic and social behaviour of rural families, revisit assumptions and identify some courses of action.

In the conceptual field

The concept of the subsistence economy has been replaced by that of the rural family economy. It was seen that not only was the concept of the subsistence economy incorrect, as most rural African families are integrated into the market, but it was also not workable because it favoured the production function in rural family units to the detriment of the consumption and distribution functions. The Family Economy was thus defined as that where the allocation of factors of production aims to achieve simultaneous objectives (i) to strengthen risk minimising social networks and (ii) to multiply the marginal productivity of each factor.

Another basic concept that was reworked concerned the peasant, or our understanding of the peasant. The concept of the peasant and similar concepts of rural African inhabitants usually refer to two main variables: land and the market, with the assumption that they converge in the agricultural sector and that they behave in exactly the same way. Empirical evidence has made it possible to add something extra to these assumptions. First, that while agriculture is an indispensable source of income it is not an exclusive one. Second, that the particular behaviour of each individual unit forms part of a whole that still holds the guarantees of social reproduction and insurance against risks. This resulted in the adoption of the concept of the rural family as the smallest unit of production, consumption and distribution in rural African societies. (Negrão, 2001).

In the field of behaviour modelling

As regards modelling the economic and social behaviour of the rural African family, empirical evidence has identified four imperfect substitutabilities. The first is between the use of time within agriculture and outside agriculture and the second is between the allocation of time within and outside market circuits. In other words, in the absence of exogenous constraints, below a given level the allocation of the family's available agricultural labour time for consumption cannot be replaced by labour outside agriculture and for the market. This produces patterns of division of labour within the family that often reveal uneven gender relations.

The third imperfect substitutability is between land used for income in kind and land used for income in cash. In other words, and once again in the absence of exogenous constraints, land for the production of income in kind is not rented, mortgaged or disposed of because this endangers the family's physical reproduction. It was also found that whenever the marginal productivity of land in terms of cash income exceeds domestic consumption levels, land becomes an indispensable basis for savings to occur. This is why it is essential to guarantee access to and ownership of the land by all rural Mozambican families.[2]

The last imperfect substitutability is between decisions on the allocation of resources influenced by lineage and those influenced by the nuclear family. In other words, above a certain amount the allocation of resources by the nuclear family takes into account its membership of social security networks that take practical form through joint actions by the lineages of the husband and the wife. Hence the enormous importance of kinship alliances, of family obligations whenever one member of the family has access to formal education, of solidarity in times of illness, among many other manifestations common to our daily life.

[2] This was the theoretical foundation of the Land Campaign that I co-ordinated for two years and that involved over 15000 volunteers in some 200 non-governmental organisations, grass roots community organisations, religious confessions and research institutions throughout the country.

This also explains the wide variety of local institutional mechanisms that constantly seek to achieve a balance between stability and institutional change.

In the field of assumptions

Empirical evidence also demonstrates the need to revisit some assumptions that are taken for granted in the theoretical justification for the construction of normative models.

In his classic study on modern economic development Kuznets found that one of the main characteristics of development was a higher rate of structural and sectoral transformation of the economy. The historical pattern of economic development is thus characterised by: the accelerated re-orientation of the economy from agriculture to industry and services; major changes in the scale of production units; the spatial and status transferral of the rural world to the urban world where services, industry and more recently the informal sector predominate.

Chenery, however, did not accept the postulate of a single pattern of industrialisation and concentrated on studying its diversity, developing the notions of primary industries, tardy industries and industries that gradually accompany economic transformation. But he did not refute the "inevitability" of development occurring outside the agricultural sector. Other growth models have been based on identical assumptions: the balanced growth models of Nurske and Rosenstein-Rodan, looking at supply or at demand as the engines for the leap forward, and the uneven growth model defended by Hirschman that inspired the various versions of import substitution defended by Prebisch, Furtado and Baran. In all these schools agriculture, and thus the rural world, are less and less relevant for the economic performance of nations.

More recently, given the need to guarantee the sustainable use of resources, pressure from schools of theoretical reasoning in various scientific fields has resurrected the importance of small-scale agriculture with *ecologically correct* technologies. Here the studies of Adelman and Morris have shown that development does not necessarily have to take place outside the agriculture sector (Adelman and Morris, 1989). These authors argue that although this was so in almost all cases where development occurred, it does not mean that this has to happen or should happen in underdeveloped countries today.

Given these kinds of studies and in the light of the systematised empirical evidence, a number of assumptions have to be revisited. Four are of particular interest to Mozambique (Negrão, 1997a; 1997b):

(i) The assumption about the *end of the peasantry in Africa*, its inevitable extinction due to urbanisation or the transformation of the rural worker, is not feasible. Given the tendency for the population growth rate to remain stable (unless HIV/AIDS continues to rise), given that the supply of jobs in the industrial and service sectors can accompany the potential rise in demand and that the relative weight of the average national wage will change substantially, the peasantry cannot continue to be considered a class on its way to extinction. It should rather be considered a feature of rural communities;

(ii) The assumption about the *technical ignorance of rural families* does not fit the facts. There is local experience and understanding that should not only be esteemed but should also be stimulated in order to enrich the individual and social formation of knowledge;

(iii) The assumption that rural families *lack endogenous organisational capacity* is false. Empirical evidence in the social science field has demonstrated the existence of time-honoured mechanisms and forms of organisation in rural societies that should be put to good use;

(iv) The assumption about the *lack of market information* should be seen as relative. Studies have shown that while it may be true that lack of information on market prices and opportunities increases transaction costs, it is no less true that even when a rural family does have information, it cannot respond to market signals if it does not have access to credit because it has few savings.

3. Where to Act?

When we go back to the empirical evidence we find that two methodological procedures are of fundamental importance in the African context, (i) the need to distinguish between growth and economic development, not just for analytical purposes but also for normative ones, and (ii) the need to design models that take into account the interaction between outcomes and postulates, and the unpredictability deriving from unmeasurable variables.

For normative purposes it is argued that the national economic strategy should have two vectors: one directed at rapid capital formation based on the exploitation of energy resources, transport and services (economic growth) and another aimed at sustainable development, based on the agriculture or primary sector (economic and social development). Although the agriculture sector may have less and less weight in the composition of Gross Domestic Product, it is and will continue to be the largest employer in the country, and must therefore be the crucial object of Mozambique’s economic development strategy.

In modelling, the performance of variables related to decentralisation and democracy have been considered essential, albeit not exclusively so, while the well-being of the citizen has been correlated with his/her economic performance.

In the light of these methodological procedures, four simultaneous ways of achieving development, not just growth, in Mozambique have been identified: *(i) the materialisation of fundamental rights; (ii) a higher rate of savings; (iii) rebuilding the institutional* *fabric; and (iv) increasing citizens' participation in decision-making processes.* [Cruzeiro do Sul, 1998].

Fundamental Rights

As concerns the *materialisation of fundamental rights*, there have been many studies on the right of rural families to water, education, environmental sanitation, health and the sustainable use of natural resources, taking into account their spatial distribution.

The issue of the spatial distribution of rural families has received particular attention due to resettlement activities following the floods as well as other forms of involuntary movement from established habitats in the post-independence period. These studies led to the conclusion that although concentrating people helps reduce relative distances to the school and the health centre, as time goes by and the number of inhabitants increases, the time required to get to fields and to collect firewood and water, also increases. This has major discriminatory implications for the work of women and girls' access to school. If all other conditions remain the same (as has been the case in Mozambique), villageisation gives rise to considerable diseconomies of scale, such as congestion, environmental degradation due to uncontrolled burning, and public health problems related to faecal pollution and chemical pollution from the use of fertilisers, pesticides and herbicides [Cruzeiro do Sul, 2000].

The studies confirmed the earlier assertion by Theodore Schultz, that investment in human capital makes a positive contribution to the efficiency and quality of a citizen's performance and to ensuring continual returns, due its multiplier effects on subsequent generations [Schultz, 1964; 1988].

It was also concluded that responsibility for materialising fundamental rights should be shared by all development actors i.e., the State, the Private Sector and Civil Society. The State should not monopolise interventions but should rather act as dynamiser and catalyst for interventions by the various partners.

The conclusions on human capital point to the development of local endogenous capacities, including technological knowledge. The transfer of knowledge should be founded on existing local endogenous knowledge; it should not be a blueprint (as invariable happens with formal education) that ignores the processes of negotiation between the receiver and the message. Local technological knowledge must not only be valued, it should also be enhanced through training.

Rate of Savings

The empirical evidence on the *rate of savings* shows once again that if development is to be sustainable it requires capital formation and this is only possible when savings are greater than consumption and are directed at productive investment. Since per capita savings are a linear function of per capita income, only a rise in the latter will be able to transform the rural family into a productive unit with the autonomy to take economic decisions based on market signals and opportunities.

As long as productive investment by the family sector remains low, there will be a stronger tendency for rising discrimination against women due to the low opportunity cost of agricultural work. However, it is important to bear in mind the imperfect substitutability mentioned earlier, that is, although the family income depends almost entirely on agricultural activities these cannot be totally replaced by employment as employment incomes are marginal compared to those obtained through self-employment.

The above-mentioned case study in the North of Mozambique found that only 4% of rural families in the area have gross incomes above US$ 1.00 a day. Under such circumstances it is difficult to envisage capital accumulation at the level necessary to escape from poverty. The evidence thus shows that it is highly unlikely that orthodox theory on financial liberalisation, based on the principle of mobilising *traditional sector* savings for investment in the *modern sector,* can be applied in the country's present situation. Firstly, because the profits resulting from the *traditional* sector's capital flows to the *modern* sector head for the offshore financial market. Secondly, and derived from the first, the tendency for interest rates to rise produces a fall in effective demand and hence a fall in output.

It follows that the feasible alternative has two essential components: (i) the adoption of an approach whereby aggregate savings are determined by investment, they do not determine investment, with the banking system responsible for financing investment that will permit increased savings through the multiplier effect; and (ii) the urgent creation of intermediation units between the formal and informal financial sector credit providers, aimed at the adoption of technological innovation and subsequently development.

Another area addressed by theoretical reasoning is the following: where does innovation take place, in the family sector or in the business sector? Given the assumptions already mentioned, Mozambique should not adopt the so-called British model of agricultural development (followed, for example, in South Africa and Zimbabwe), based on the large commercial farm with wageworkers. We should rather opt for the *Danish model*, with its strategy of transforming traditional peasant family holdings (or *machambas*) into highly productive individual production units that are sufficiently open to the adoption of technological innovation. In this way, higher productivity will arise from applying knowledge and technologies that are the result of demand by productive units; it will not be the hostage of supply provided exclusively through rural extension services.

The crucial question is, how to do this? Given their lack of accumulated capital and the difficulties faced by family production units in accessing credit, the alternative to date has been the establishment of *a new type of* partnership between the family sector and the business sector. The family unit's capital is land, labour and the local institutional framework; the business community has technology, business management know-how, dynamism in seeking out market niches and the possibility of adding value at local level by processing the crops of the family units. As the family unit increases its savings the development promotion function (extension, credit in the form of inputs, transport and storage) is gradually transferred from the business sector to the family sector. The former is responsible for ensuring demand at the factory gate and the latter is responsible for production and placement according to market signals. Increasing demand through agro-industry in a new kind of partnership system, together with the constant exploration of market niches, thus has a key role to play in Mozambique's development process.

Institutional Fabric

R*ebuilding the institutional fabric* is one of the variables where more action is required. By institutions we mean the rules, norms and habits that define rights and enforce duties in relations between people. It has been found that the greater the legitimacy and flexibility of institutions the more equitable the distribution of income and the lower the transaction costs, i.e. the costs related to information, negotiation and monitoring the implementation of decisions by productive units. Participation by communities and by administrative, economic and social partners in enhancing local institutions has also been identified as indispensable to the development process.

It can thus be concluded that the decentralisation process, perceived as a means of devolving power to citizens, must be accompanied by mechanisms and practices that involve citizens, and by negotiation among the different interest groups at all levels and interests, starting with gender relations within the rural family. For reasons of social stability it would be advisable to adopt the principle of *gradual and simultaneous application*, at least in three different areas: (i) the politico-administrative area of the State – National Capital, Provinces and Districts; (ii) the area of interest groups – the State, the Business Sector and Civil Society; and (iii) the community area – the Family, Community, Locality or equivalent territorial area where local authorities are recognised.

The evidence has shown that the stronger the legitimacy of State power, the better the material, financial and human conditions for exercising that power, and the greater the representativity of the different partners in decision-making bodies, the more effective the development process. However, it has also been shown that the State carries and imposes extremely high transaction costs. It does so by not regulating forms of negotiation, by permitting and participating in monopoly and monopsony conditions, by encouraging bureaucracy and by being permeable to corruption.

It is also foreseen that the gradual transfer of the business and state promotion function to the family sector, to the mutual advantage of all concerned, will be all the more effective the more developed the institutional framework (i.e. fully functional associations, societies, councils), as transaction and operating costs will tend to be lower.

Decision-Making Processes

Finally, in the field of the *citizen's participation in the decision-making processes*, the limitations of representative democracy on the ground are evident - the capital is too far away, power elites reproduce themselves and the rhetoric of party politics frequently becomes a fixture in the futile discourse of local civil servants. Studies have shown that social and political stability requires much more than just delegating power through a vote; it requires effective participation in decision-making processes, from the family up to the national level – it requires the exercise of participatory democracy [Cruzeiro do Sul, 2000].

Economic History has not demonstrated any direct correlation between representative democracy and economic growth, nor any causal relationship between decentralisation and the exercise of power by communities. Nevertheless, effective participation – not just *consultation* - at local level by administrative, economic and social partners is considered indispensable for the development process.

It has also been concluded that the issue of relative distances to resources (field, water and firewood), to markets (labour and crops) and to services (education and health), plays a decisive role in the allocation of the available work time within the rural family and has strong repercussions on gender relations in decision-making processes. The elasticity of the family's labour use curve for productive and domestic activities is practically nil. The opportunity cost of work time, a function of gender and age, is lower for adult women, followed by young women and higher among adult males. There is thus a vital need to increase productivity at the local level and reduce relative distances by building roads and providing low-cost means of transport.

Model of the Interaction between the Four Development Variables

A model is nothing more than a representation of the real world, an image that tries to capture the essential elements of a real situation, that in turn is an abstraction built on specific criteria for the selection of facts (the real world of scientists) and a set of premises (the conceptual body of scientists).

According to this model, the correlations between the axes *savings rate*, *fundamental rights, institutional fabric and decision-making processes* make it possible to explain socio-economic behaviour and thus act in order to induce development.

The first correlation is that between the materialisation of Fundamental Rights and the higher Savings Rate. Increasing the Savings Rate of the rural family in particular, and the productive unit in general, depends on level of education, the quality of the water drunk, nutrition and health conditions, environmental sanitation, *inter-generational* equity in the use of resources and the exercise of rights. The greater the materialisation of the citizen's fundamental rights the higher the productive unit's savings rate.

The second correlation is the reverse. The higher the Savings Rate the greater the materialisation of Fundamental Rights.

However, the full operation of these two correlations derives from the consistency of the Institutional Fabric and of the active participation of citizens in Decision-Making Processes. The fewer obstacles to the delegation of power created by public institutions, the faster fundamental rights are materialised and the higher the national savings. The consistency of the institutional fabric and the democratisation of power thus have causality relationships with development.

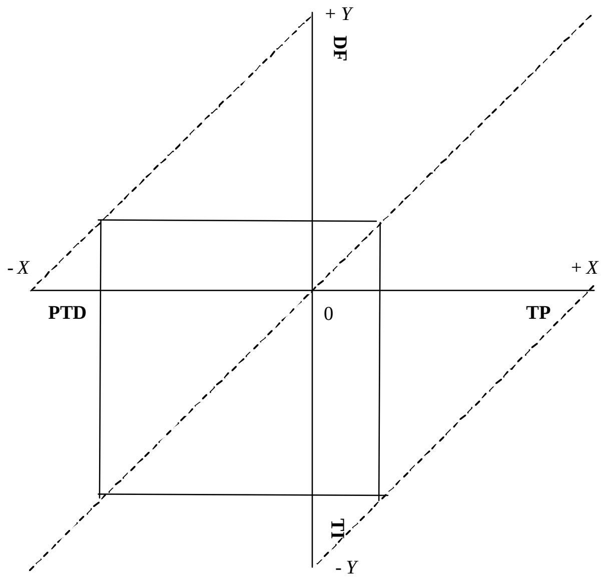

Fig 1: Interaction of the four development variables:
FR – Fundamental Rights; SR – Savings Rate;
IF – Institutional Fabric; DMP - Decision-Making Processes.

Some ways to induce development in Mozambique

Research has led to the conclusion that in order to induce the development process in Mozambique investment should be simultaneously directed towards:

(i) Making available *cheap money* to the national business sector with the aim of increasing demand in the family sector through agro-industry;

(ii) Establishing *a new kind of partnership* between the business and family sectors, the latter's capital being the natural resources of the area it occupies and that of the former being technology, management know-how and market access;

(iii) Developing *human capital*, especially through basic education, better quality potable water and general sanitation;

(iv) Reducing *relative distances* to services, markets and resources by building infrastructure, providing low-cost transport and gradually replacing wood fuel by electricity and fossil fuel;

(v) Rebuilding the *institutional fabric* based on principles of participation in decision-making processes at all levels, gender balanced relations and the inclusion of endogenous and crosscutting institutions in governance.

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