

DISCUSSION PAPER / 2007.02



## Striving for growth, bypassing the poor?

A critical review of Rwanda's  
rural sector policies

An **Ansoms**



University  
of Antwerp



INSTITUTE OF DEVELOPMENT  
POLICY AND MANAGEMENT

**Comments on this Discussion Paper are invited.  
Please contact the author at <an.ansoms@ua.ac.be>**

*Instituut voor Ontwikkelingsbeleid en -Beheer  
Institute of Development Policy and Management  
Institut de Politique et de Gestion du Développement  
Instituto de Política y Gestión del Desarrollo*

**Postal address:**  
Prinsstraat 13  
B-2000 Antwerpen  
Belgium

**Visiting address:**  
Lange Sint-Annastraat 7  
B-2000 Antwerpen  
Belgium

**Tel: +32 (0)3 275 57 70  
Fax: +32 (0)3 275 57 71  
e-mail: dev@ua.ac.be**

**<http://www.ua.ac.be/dev>**



**Striving for Growth,  
Bypassing the Poor?**  
A Critical Review of Rwanda's  
Rural Sector Policies

An **Ansoms**\*

July 2007

\* An Ansoms is researcher at the Institute of Development Policy and Management, University of Antwerp.

The author owes many thanks to the recommendations provided by Luc Christiaensen (World Bank), Stefaan Marysse (IOB-University of Antwerp) and Filip Reyntjens (IOB-University of Antwerp)



**CONTENTS**

<b>Abstract</b>	<b>4</b>
<b>Résumé</b>	<b>5</b>
<b>Introduction</b>	<b>7</b>
<b>1. The fight against poverty: setting the right priorities?</b>	<b>9</b>
1.1. Depending on the trickle-down effect?	
The danger of a growth-led strategy for poverty reduction	9
1.2. The agricultural sector as a growth engine in PRSP policy	11
1.3. How pro-poor is agricultural growth?	14
<b>2. Transforming the rural sector: New policies for achieving agricultural growth</b>	<b>16</b>
2.1. The agricultural policy	16
2.2. The land policy and land law	20
<b>3. Transforming the rural sector: the poor at the forefront or remaining offstage?</b>	<b>23</b>
<b>4. Conclusions: output growth versus equity considerations - an unavoidable trade-off?</b>	<b>30</b>
<b>Bibliography</b>	<b>33</b>

## ABSTRACT

This paper critically analyses the challenges and priorities for Rwanda's rural sector policies in the fight against poverty. The lessons drawn are important, as this sector will be at the forefront of Rwanda's new Economic Development and Poverty Reduction Strategy (EDPRS or PRSP-2). The paper first looks at the dangers of the purely growth-led development focus in Rwanda's PRSP-1 (implemented between 2002-2005), and evaluates the extent to which the agricultural sector has, indeed, been a pro-poor growth engine. It then studies the government's current agricultural policies and looks at the recently adopted land law, both of which aim to modernize and 'professionalize' the rural sector. There is a high risk that policy measures in favour of a more professional and modern farm sector will be at the expense of the large mass of small-scale peasants. This paper stresses that the real challenge to transform the rural sector into a true pro-poor growth engine will be to value and incorporate the capacity and potential of small-scale 'non-professional' peasants into the core strategies for rural development. Rwandan policy makers and international donors should shift their focus away from a purely output-led logic towards distribution-oriented rural development policies. Striving for pro-poor growth requires reconciling output growth with equity, and perhaps even putting equity first.

## RÉSUMÉ

Cet article analyse d'un oeil critique les priorités et les défis des politiques agricoles au Rwanda dans la lutte contre la pauvreté. Les conclusions sont importantes étant donné que ce secteur sera une des priorités du nouveau Document Stratégique de Développement Economique et de Réduction de la Pauvreté au Rwanda (DSRP-2). L'article considère d'abord le danger d'un développement qui se concentre largement sur la croissance économique comme ce fut le cas dans le premier DSRP rwandais (implémenté entre 2002-2005) et il évalue à quel degré le secteur agricole a réellement constitué un moteur de croissance pro pauvre. Ensuite, il étudie la politique gouvernementale agricole actuelle et examine la récente loi foncière, qui visent à moderniser et à professionnaliser le secteur agricole. Il y a un grand risque que les mesures actuelles, favorisant une agriculture plus professionnelle et plus moderne, agissent au détriment d'un grand nombre d'agriculteurs de petite taille. Cet article veut illustrer que le vrai défi pour transformer le secteur rural au Rwanda en moteur de croissance en faveur des pauvres serait de reconnaître la capacité et le potentiel des agriculteurs non professionnels de petite taille dans les politiques de développement rural. Les autorités rwandaises et les bailleurs internationaux devraient évoluer en passant d'une logique de croissance et de production maximales vers des mesures de développement de redistribution. Aspirer à la création d'une croissance pro pauvre nécessite de réconcilier la croissance avec l'équité en donnant peut-être même la priorité à l'équité.





## INTRODUCTION

At the dawn of the new millennium, the commitment of the international community to the millennium development goals has placed the fight against poverty as the top priority on the respective agendas of international donor and recipient countries. Concurrently, international financial institutions (IFIs) have launched the “Poverty Reduction Strategy” program (PRSP). This new, country-led, poverty-alleviating framework replaced the previous system of Structural Adjustment Programs (SAPs). With over fifty countries having reached the PRSP implementation phase, this strategy has become the standard framework for development strategies. It also functions as an access gate to international financial aid (e.g. Poverty Reduction and Growth Facilities, and debt alleviation under the HIPC<sup>1</sup> initiative).

<sup>1</sup> HIPC stands for heavily-indebted poor countries.

Rwanda entered the PRSP process in 2000. The government first elaborated an interim PRSP that was later transformed into the final PRSP-1 document. The strategy was endorsed by the IFIs in 2002, and implemented from 2002 until 2005. IMF joint staff assessments largely appraised the Rwandan policy document as well as PRSP progress reports describing the program’s implementation process (IMF, 2004A, 2005A, 2006A). In early 2006, the Rwandan government began to elaborate a second PRSP policy. This strategy, the “Economic Development and Poverty Reduction Strategy” (in this paper referred to as EDPRS or PRSP-2), is to be finalized in 2007. It will be implemented over the following five years, financed by bilateral and international donors to a large extent.

The agricultural sector is considered crucial in all of Rwanda’s strategic documents on poverty reduction. One of the “six pillars” in the Vision 2020 document was defined as the “transformation of agriculture into a productive, high-value, market-oriented sector with forward linkages to other sectors” (GoR, 2000). PRSP-1 also identified rural development and agricultural transformation as one of the six pillars for poverty reduction (i.e. “actions that most directly affect poor peoples’ ability to raise their incomes”- GoR, 2002:35). Further, each PRSP progress report has devoted a special section to progress in this sector.

This is hardly surprising given that agriculture employs almost 90% of Rwanda’s active working population and represents about 45% of its GDP. Moreover, it is in the rural environment, rather than in urban areas, that poverty is more prominent and severe. Based on a national poverty line of 250 Frw (US\$ 0.44 nominal 2006 prices) per adult per day, 61.7% of the rural population is considered poor (2006 figures). The incidence of urban poverty is considerably lower

(e.g. 10.4% in Kigali city and 17.8% in other towns) (UNDP, 2007). In absolute numbers, about 4.93 million of the 5.38 million poor live in rural areas (GoR, 2007A).

With the end of Rwanda's first PRSP implementation period, the country's experience allows us to reach certain preliminary conclusions with regards to the results and usefulness of the PRSP strategy. The identified strengths and weaknesses may help to enhance the efficiency of the new EDPRS policy. In the first part of this paper, we focus on the dangers of a growth-led strategy for poverty reduction, and then look at the role of rural development as a growth engine in PRSP policy<sup>2</sup>. In the second part, we analyse the current agricultural and land policies that support rural development. These policies should serve as a blueprint for the EDPRS program in which the rural sector will be at the fore. A third part looks at how rural policies will affect the welfare and bargaining positions of different types of farmers. In the concluding part of the paper, we question whether there is, indeed, an unavoidable trade-off between output growth and equity considerations.

<sup>2</sup> For a broader evaluation of Rwanda's PRSP strategy, see Evans et al. (2006).

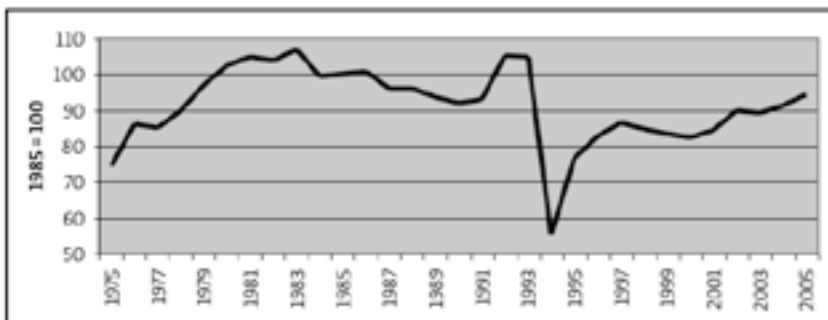
## 1. THE FIGHT AGAINST POVERTY: SETTING THE RIGHT PRIORITIES?

### 1.1. Depending on the trickle-down effect? The danger of a growth-led strategy for poverty reduction

After four years implementing poverty-combating policies, we can now conclude on whether the assumptions made in Rwanda's PRSP-1 were realistic. Targets for annual growth per capita in the first Rwandan PRSP were set at 4-5% for the next 15 to 20 years. This implies 7-8% per annum overall real growth (GoR, 2000). Projections were, however, later reduced to 6-7% for the PRSP-1's 2002-2005 implementation period (GoR, 2002). In subsequent PRSP progress reports and IMF statistical documents, growth projections were typically set at around 6%. Two important questions then arise. First, have these growth expectations been realistic; and second, to what extent did growth translate into poverty reduction?

These ambitious projections for the first PRSP implementation period seemed to be justified based on Rwanda's solid post-civil war economic recovery with average annual growth of 8.6% between 1996 and 2001. There are, however, some critical observations to add. Graph 1 shows how the average period growth rate is influenced by exceptional growth figures in the first years (i.e. the steep slope), which moderate a few years later. From a longer-term perspective, economic performance has still not reached mid-1980s levels. Moreover, Rwanda benefited from the receipt of substantial aid funds, which significantly exceeded the sub-Saharan African average (Ansoms, 2005). The country also benefited from financial transfers out of the DRC during the years of Rwanda's military involvement there (Cassimon and Maysse, 2001). It seems likely that these capital inflows fuelled Rwanda's exceptional economic recovery in the immediate post-war period.

**Graph 1: Evolution of GDP per capita**



Source: World Bank, 2006.

In more recent years (i.e. 2003-2006), annual growth did not meet the projected rate of approximately 6% (IMF: 2005B, 2006B). This recent trend illustrates the vulnerability of Rwanda's economy to structural limitations, including overpopulation, resource scarcity and a limited potential for economic diversification. Further, overall growth targets for the coming years were lowered to between 4% and 4.5%. This would dampen per capita growth to a modest 2.1 – 2.6%<sup>3</sup>, far below the rate of 4 to 5% presented as a target in PRSP1.

With reference to the above, the first issue to consider is whether growth will be substantial and sustainable enough in the near future; or whether current economic trends will signal the onset of more temperate times.

The second principal issue is the degree of economic growth's 'pro-poorness'. There are two dominant views on what constitutes pro-poor growth (Page, 2006). One definition highlights the importance of reducing inequality by defining pro-poor growth as growth that disproportionately benefits the poor (Kraay, 2006; Klasen, 2003; Kakwani and Pernia, 2000). Another definition regards economic growth as pro-poor when the living conditions of the poor improve in absolute terms, thus when poverty decreases (Ravallion and Chen, 2003). The main issue then is how much growth is pro-poor. This can be measured in several ways, for example with the country's growth elasticity of poverty index.

Cross-country evidence situates the average growth elasticity of poverty within the interval -2 and -3. This implies that positive (or negative) growth of 1% should lead to a 2-3% decrease (or increase) in the incidence of poverty, as measured by the percentage of people living below poverty line of US\$ 1 PPP per head (Ravallion and Chen, 1997; World Bank, 2000; Ravallion, 2001 and Adams, 2004). Adams (2004) found that this elasticity might differ for individual countries depending upon their initial inequality levels. Countries with higher inequality levels (i.e. Gini > 0.4) have lower poverty elasticity rates and vice versa.

Turning to Rwanda, the growth elasticity of poverty for the recent post-conflict period is not very promising in comparison with other developing countries. In the immediate post-genocide period (1994-2000), each percentage point of economic growth led only to a 0.37% decrease in the incidence of poverty, this is an elasticity of -0.37 (Ansoms, 2005). Rwanda's case thus seems to be a clear example of the highly negative impact of inequality upon the pro-poor effect of growth (GoR, 2002). 2001's high inequality rate (Gini of 0.451) contrasts dramatically with those of the mid-1980s when Rwanda

<sup>3</sup> This is the per capita growth rate based on the overall GDP growth rate and a continued annual population increase of approximately 1.9 %, this is the 2001-2005 average according to World Bank (2006). Other sources estimate population growth to be much higher, which would result in an even lower per capita growth rate.

qualified as a low-inequality country (with a Gini of 0.289 - Ansoms, 2005)<sup>4</sup>.

Moreover, inequality has further increased over the PRSP–1 implementation period, with the Gini reaching 0.51 in 2006. For the same period, the incidence of poverty decreased from 60.3% to 56.9% based on the national poverty line (which is different from the US\$ 1 PPP per day poverty line<sup>5</sup> - GoR, 2006A). In combination with an average annual growth of 4.6%, this results in a growth elasticity of poverty of -0.40. Although this figure is not comparable with the cross-country average (due to the difference in poverty lines), the result is clearly disappointing. The pro-poor character of Rwandan economic growth is thus extremely weak, and this despite the implementation of PRSP policy.

Overall, the disappointing derived effect of post-conflict growth on poverty incidence, in combination with more moderate growth projections for the coming years, certainly tempers the potential of a successful growth-reliant strategy for poverty reduction in Rwanda.

## 1.2. The agricultural sector as a growth engine in PRSP policy

Even more challenging is the PRSP's ambition to transform the rural sector into an engine for growth. Over decades, development theory has been influenced by the presumption of the need for the structural transformation of an economy to achieve modern economic growth. As stated by Kuznets<sup>6</sup>, "(these) major aspects of structural change include the shift away from agriculture to non-agricultural pursuits ... with a corresponding change in the occupation status of labour" (i.e. "changes in the distribution of the labor force between agriculture and the non-agricultural production sectors" - Kuznets, 1973:248). Based on Western experience, less-developed countries were pushed to strive for economic emancipation through the modernization of their own economies with a decreased reliance on the primary sector (i.e. agricultural activities).

However, the African experience has been characterized by decades of unfruitful attempts to shift away from the agricultural sector<sup>7</sup>. More recently, with the "fight against poverty" at the forefront of the international agenda and due to high rural poverty rates, the need for rural-led development and economic growth has resurfaced in popular development theory (see Mwabu and Thorbecke, 2004). As a result, appreciation of the agriculture sector's importance has

<sup>4</sup> There are no nationally representative, comparable data available to measure the Gini coefficient between 1985 and 2001.

<sup>5</sup> The incidence of poverty, using the poverty line of 1\$ PPP per head per day, is not yet available for 2006. The national poverty line is equivalent to 250 frw (US\$ 0.44 nominal 2006 prices) per adult equivalent per day.

<sup>6</sup> Simon Kuznets (1901-1985) was a renowned economist whose study on the evolution of inequality over time resulted in the defining of the "Kuznets curve". Kuznets' theory states that inequality increases over time up to a point where a critical income level is reached. From then onwards inequality decreases with rising income levels. The Kuznets curve has the shape of an inverted U with economic development on the X axis and inequality on the Y axis.

<sup>7</sup> In the early 1970s, agriculture represented around 20.9% of GDP in sub-Saharan Africa; by 2002 this has decreased slightly but the relative importance of primary activities still amounts to 17.7%. Moreover, the primary sector counts for 40% or more of total GDP in over ten sub-Saharan African countries, and it is the most important sector in terms of employment in many more sub-Saharan African countries (World Bank, 2006).

returned, though the continued need for households to diversify their incomes by shifting away from pure subsistence agriculture towards other activities, both in the farm and non-farm economy, is still recognized (see, for example, Yaro, 2006; Abdulai and CroleRees, 2001<sup>8</sup>).

Indeed also Rwanda's PRSP highlights the crucial importance of the rural sector for the country's economic future. The agriculture and livestock sector are presented as "the primary engine of growth", though the document also stresses the importance of finding other new growth engines (GoR, 2002:30). PRSP-1 projections for agricultural performance were ambitious as "primary growth is predicted to start at 5.2% and accelerate over the period" (GoR, 2002:75). This estimate corresponded with projections made by Mellor who foresaw 75% of this growth will be due to improved fertiliser use, 16% to more intensive farming, and 9% to the swamp reclamation program (Mellor, 2002A).

However, between 2002 and 2004 agricultural activity stagnated and even contracted (Table 1). These statistics probably underestimate the sector's poor performance, given that estimates provided by the Minagri / Food Security Research Project (FSRP - available only for 2000 – 2002) are significantly lower. The FSRP's statistics seem to be more appropriate for measuring food production than national account data<sup>9</sup> (IMF, 2004B). The most straightforward explanation for contractions in agricultural activities is the impact of poor weather on food production. As mentioned in the PRSP progress report, growth in agricultural output is largely "at the mercy of good weather" (GoR, 2004A: 17). Agricultural growth between 2004 –2005 again met the PRSP target; however Rwanda was once again affected by bad weather in 2006 and early 2007.

<sup>8</sup> Studying northern Ghana, Yaro opposes the deagrarianisation thesis by arguing that livelihood adaptation can take the form of both a shift from farm to non-farm activities, as well as an intensification of purely agricultural activities. Abdulai and CroleRees also study diversification strategies, both in and outside the agrarian sector (e.g. livestock raising and non-farm jobs next to crop raising). They conclude that, in the context of southern Mali, it is mostly the lack of capital, the remoteness index and the lack of education that limit a household's options for diversifying their income portfolio.

<sup>9</sup> Using Minagri / FSRP (Food Security Research Project) data to compute national accounts would have a large influence on overall figures. GDP would, for example, be 13% lower than what is reported by the national account data in the IMF reports for 2000. The agricultural sector would then represent only 35% instead of 44% of total GDP. The IMF report, analyzing discrepancies between both data sources, considers the FSRP data to be more reliable and even suggests that "these differences [between original national account data and FSRP data] are substantial enough to influence the assessment of food security in Rwanda" (IMF, 2004:12).

**Table 1: Agricultural growth**

	% of total GDP Av. 2001-2004	% growth			
		2001-2002	2002-2003	2003-2004	2004-2005
<b>Agriculture</b>	44.5	15.0	-4.5	1.4	5.8
<b>of which food crop</b>	37.7	17.3	-4.9	-0.7	7.3
<b>of which export crop</b>	1.2	4.2	-26.1	48.8	-20.6
<b>of which livestock</b>	4.0	3.0	3.0	10.3	3.0
<b>of which fisheries</b>	0.3	1.0	1.0	0.0	0.0
<b>of which forestry</b>	1.3	3.1	3.0	-0.6	3.0
<b>Total GDP</b>	100.0	9.6	0.7	4.4	6.3

Source: GoR, 2005A:113. For a recent update, see Ruzindaza, 2006.

These figures clearly illustrate the failure of the first PRSP

strategy to transform the agricultural sector into a stable engine for growth. The (poor) performance might also be due, in part, to weak budgetary commitments to the rural economy, see table 2, where two dominant problems emerge. First, agriculture-related spending represents only 2-5% of the priority budget (actual figures) between 2002-2005<sup>10</sup>. The share of agriculture-related spending is small in comparison to the financial commitments directed, for example, to tertiary education (around 14% of the 2002-2003 priority budget). These figures indicate how the Rwandan government presents spending posts targeting at the urban elite as pro-poor priority expenditures. A second major problem lies in the low absorptive capacity of the agricultural sector, illustrated by the discrepancy between budgeted and actual spending in 2003 and 2004. Despite some improvements towards 2006, agricultural activity and the broader rural sector in general have not received sufficient budgetary commitments. It is not surprising therefore that the rural economy did not meet PRSP forecasts.

<sup>10</sup> The decreasing relative importance of agricultural expenditures, in comparison to 2002, is the result of a considerable reduction in agricultural spending in absolute terms; but it is also due to an enlargement of the definition of "priority expenditures", with the inclusion of new spending categories unrelated to the rural economy.

**Table 2: Agriculture-related priority expenditures**

%	Act 2001	Budg 2002	Act 2002	Budg 2003	Act. 2003	Budg 2004	Act 2004	Budg 2005	Act 2005	Budg 2006	Act 2006	Budg 2007
Priority expenditures as % of total exp.	25.3	32.1	35.8	28.4	30.5	35.6	35.7	32.5	35.9	42.0	49.8	54.2
Tot Priority expenditures (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
- Of which education (%)	62.9	22.9	21.5	21.4	24.8	22.2	24.1	23.8	38.2	39.7	41.3	36.9
Of which tertiary (%)	19.7	15.5	14.2	13.3	13.8	12.8	na	na	na	na	na	na
- Of which agriculture (%)	4.6	4.6	5.2	4.7	2.3	3.4	2.2	3.4	4.9	4.7	6.4	11.5

Remark: "Act" stands for actual expenditures, "budg" stands for budgeted expenditures  
Sources: Purcell et al., 2005; GoR, 2006B and GoR, 2007B.

### 1.3. How pro-poor is agricultural growth?

There seems to be increased awareness in Rwanda's second poverty reduction strategy (EDPRS), now being prepared, of agriculture's importance as "the pillar for rural development" (GoR, 2004B:1). During interviews in early 2006, EDPRS ministerial stakeholders expressed their hopes that the new document would accentuate the rural sector, and transform it into a real engine for growth through agricultural transformation<sup>11</sup>. The goal then is to realise the ambition of the first PRSP, "because Rwanda's growth strategy is based on agriculture, it is specifically designed to be pro-poor" (GoR, 2002:31).

But is it naïve to assume that growth, per se, even when sought in the rural economy would be pro-poor? Growth in the agricultural sector does have a greater impact upon poverty reduction than growth in other sectors (Gallup et al., 2007 and Christiaensen et al., 2006). Moreover, agricultural growth spills over to other activities in the rural economy (Thirtle et al., 2002 and Irz et al., 2001). But the impact of agricultural growth on poverty reduction depends upon the extent to which the poor participate in this growth. One World Bank study (2005) found that the participation of poor rural households in agricultural growth could differ greatly depending upon the local context. They identify several policies that can improve the pro-poor character of agricultural growth, all relating to improving the institutional environment of smaller and poorer producers (e.g. access to markets, technology, risk-coping mechanisms - World Bank, 2005). Other studies emphasize the importance of a relatively equal distribution of assets, particularly land, to achieve an optimal pro-poor growth effect (Ravallion and Datt, 2002; Deininger and Squire, 1998 and de Janvry and Sadoulet, 1996). A recent (2006) OECD report highlights the importance of small-scale agriculture, with its potential to create a win-win outcome for economic growth and poverty reduction.

The potential of the economy's sectors to reduce poverty through growth can be measured by comparing the growth elasticity of poverty for each sector. The sector's elasticity multiplied by the sectoral share of GDP gives the participation effect for each sector to overall poverty reduction. Christiaensen and Demery (2006) have estimated both effects for sub-Saharan African (SSA) low-income countries (Table 3, SSA-low income results) from the following equation:

$$\Delta \ln P = \pi_0 + \pi_a s_a \Delta Y_a + \pi_i s_i \Delta Y_i + \pi_s s_s \Delta Y_s$$

where  $\pi_x$  is the elasticity of poverty of sector  $x$ <sup>12</sup>,  $s_x$  is the share of sector  $x$  in GDP, and  $\pi_x * s_x$  is the participation effect.

<sup>11</sup> The report of the EDPRS Process Launch Workshop (2-3 February 2006, Kigali) mentions agricultural and rural development to be of critical importance as one of the key issues raised during the workshop's discussion on how to support growth and poverty reduction. As mentioned in a preliminary draft of the EDPRS (July 2007), one of its strategic priorities is to "raise agricultural productivity and ensure food security" (GoR, 2007A).

<sup>12</sup> The growth elasticity of poverty of the agricultural sector is measured as the ratio between the log average annual change in poverty and the log average annual change in primary GDP per capita.



**Table3: Growth elasticity of poverty and participation effect for different sectors**

	GDP share (%) (1)*			Growth elasticity of poverty (2)**			Participation effect (1) x (2)**		
	Agr	Ind	Ser	Agr	Ind	Ser	Agr	Ind	Ser
SSA, low-income	32	23	45	-6.22	1.31	-1.09	-1.99	0.30	-0.49
Rwanda 1994-2000	45	19	36	-2.17	-1.17	-0.66	-0.98	-0.22	-0.24
Rwanda 2001-2006	41	21	38	-0.84	-0.52	-0.61	-0.35	-0.11	-0.23

Remark: "Agr" stands for the agricultural sector, "Ind" stands for the industrial sector, "Ser" stands for the service sector.

\* GDP shares for Rwanda are based on the average between 1994 and 2000, and the average between 2001 and 2005<sup>13</sup>.

\*\* The growth elasticity of poverty and the participation effect for Rwanda 2001-2006 are not comparable with the other figures, given that a different poverty line has been used to calculate these figures.

<sup>13</sup> Data on the GDP division over primary, secondary and tertiary sectors – necessary to calculate the total value added of the agricultural sector – were not available for 2006.

Sources: for SSA data - Christiaensen and Demery, 2006; for Rwandan data - Ansoms, 2007.

Similar calculations for Rwanda (Table 3) show that the growth elasticity of poverty for the agricultural sector is low. For the period 1994-2000, the elasticity is almost three times lower than that of the average SSA, low-income country. Nonetheless, Rwandan statistics for this period are consistent with cross-country findings, to the extent that agricultural growth is correlated with considerably more poverty reduction than growth in the other two sectors (i.e. the secondary and tertiary sectors). However, for the period 2001-2006, the situation seems to have worsened. Though these figures cannot be compared with other Rwandan and SSA statistics (as a different poverty line has been used for the calculations), we can nonetheless observe that the elasticity and participation effect of the Rwandan agricultural sector are very low, and are no longer significantly different from those of the other two sectors (Ansoms, 2007).

Overall, the pro-poor impact of agricultural growth over the PRSP-1 implementation period is thus problematic. This can be explained by a low participation of the poorer rural categories in agricultural growth. As we show later in this paper, there are many institutional constraints that Rwandan small-scale peasants face (e.g. the lack of access to markets, credit and risk-insurance opportunities, fertilisers, etc.). Further, Rwanda is characterised by a high degree of land inequality (Table 4). Moreover, small-scale peasants have been increasingly marginalized in terms of land ownership over the past decades. According to Jayne et alii (2003), average land availability has strongly declined for all quartiles between 1990 and 2000, except for the richest. In line with cross-country evidence (e.g. Ravallion and Datt, 2002; Deininger and Squire, 1998 and de Janvry and Sadoulet, 1996), the Rwandan example thus illustrates how highly unequal distribution of land holdings contributes to the weakening of linkage of land-poorer groups to agricultural growth.

**Table 4: Land distribution**

	Av. land access per hh	Household per capita land access					Inequality		
		Quart 1	Quart 2	Quart 3	Quart 4	Av.	Gini 1	Gini 2	Gini 3
<b>1984</b>	1.20	0.07	0.15	0.26	0.62	0.28	-	-	-
<b>1990</b>	0.94	0.05	0.10	0.16	0.39	0.17	0.43	0.43	0.41
<b>2000</b>	0.71	0.02	0.06	0.13	0.43	0.16	0.52	0.54	0.54

Remark: Gini 1 is defined in terms of land per household, Gini 2 in terms of land per capita and Gini 3 in terms of land per adult.

Source: Jayne et al., 2003:262.

## **2. TRANSFORMING THE RURAL SECTOR: NEW POLICIES FOR ACHIEVING AGRICULTURAL GROWTH**

The previous analysis highlights the importance of evaluating poverty combating and particularly rural sector policies on both their growth-enhancing and poverty-reducing character. In this section, we therefore look at the most recent Rwandan rural policy documents.

### **2.1. The agricultural policy**

Current Rwandan agricultural policy (the National Agricultural Policy or NAP) was elaborated and then operationalized in the 2004 Strategic Plan for Agricultural Transformation (SPAT). Both documents serve as blueprints for the elaboration of EDPRS policy.

The NAP's global objective is "to create conditions favourable to sustainable development and promotion of agricultural and livestock produces, in order to ensure national food security, integration of agriculture and livestock in a market-oriented economy and to generate increasing incomes to the producers." (GoR, 2004A: 11). This policy outline has been translated into action plans in the SPAT document, which are to be realised over a 4-year period, starting with a pilot phase in 2005 and then followed by a 3-year implementation period. It aims to transform the agricultural sector from a subsistence production orientation towards a professional, commercial and competitive economic activity. The SPAT document (Table 5) focuses on 4 priority programs subdivided into seventeen sub-programs (GoR, 2004B).

**Table 5: SPAT strategy and budgetary priorities**

As % of total SPAT budget	2006	2007 est.	2008 est.
<b>TOTAL</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>P1: The intensification and development of sustainable production systems</b>	<b>39.3</b>	<b>38.8</b>	<b>38.3</b>
SP11: Sustainable management of nat. resources - conservation of water and soils	0.7	0.6	0.5
SP12: Development of integrated livestock systems, agro-sylvo-pastoral production	8.8	7.7	7.0
SP13: Marshland development	0.8	0.7	0.6
SP14: Irrigation development	0.2	0.2	0.2
SP15: Supply and use of fertilizers and mechanisation	28.8	28.6	29.1
SP16: Food security, management of risks and vulnerability	1.2%	1.1	1.0
<b>P2: Support to professionalization of producers</b>	<b>21.1</b>	<b>21.9</b>	<b>23.6</b>
SP21: Promotion of farmers organizations and strengthening of producers capacities	3.3	2.9	2.6
SP22: Reform of proximity services to producers and rural innovation	0.8	0.7	0.6
SP23: Promotion of research for agriculture and livestock development	16.9	18.3	20.3
SP24: Rural financial systems and agriculture credit development	0.1	0.1	0.1
<b>P3: Promotion of commodity chains horticulture - development of agribusiness</b>	<b>9.1</b>	<b>11.3</b>	<b>11.6</b>
SP31: Creation of a conducive business environment and enterprise promotion	0.8	0.7	0.6
SP32: Promotion and development of commodity chains and horticulture	0.7	0.6	0.6
SP33: Transformation and competitiveness of agricultural products	7.6	10.0	10.4
SP34: Rural support infrastructures	0.0	0.0	0.0
<b>P4: Institutional development</b>	<b>30.6</b>	<b>27.9</b>	<b>26.5</b>
SP41: Management support	27.0	24.9	23.8
SP42: ICT development and coordination in the agricultural sector	2.6	2.1	1.9
SP43: Planning, coordination, monitoring and evaluation of the agricultural sector	1.0	0.9	0.8

Source: Rutagwenda, 2006 (an earlier indicative budget was published in GoR, 2004B).

On different occasions, SPAT refers to its mission to improve the living conditions of the rural poor by guaranteeing that “different categories of agricultural farmers, especially the most vulnerable, benefit from the economic growth that is being advocated” (GoR, 2004B:7). However, of the seventeen sub-programs only one (SP16 – food security, management of risks and vulnerability) has a clear pro-poor character. This sub-program focuses on reducing food and nutritional deficits, reducing vulnerability in food deficit zones and of population groups affected by this, and on creating massive employment through labour intensive works targeting vulnerable categories.

There seems to be a clear ambition to satisfy the population’s food needs with national production<sup>14</sup>. However, the approach advocated focuses on the supply side by striving for maximum output growth, instead of concentrating on how vulnerable groups will take part in creating this growth and will thus acquire the necessary purchasing power to access food supplies. Little attention is given to preventing those processes or events that increase the economic vulnerability of these peoples’ lives.

<sup>14</sup> In 2001, commercial imports of food accounted for 25.5% of national food needs, food aid contributed another 6.5% of total needs (GoR, 2004B).

Also problematic is the conceptualisation of the term ‘vulnerable groups’. This term appears in both SPAT and the PRSP to relate to female or child-headed households, genocide survivors, and demobilised / resettled households (GoR, 2002; GoR, 2004B). This interpretation, based on gender or war-related identities, is very restrictive and disregards the multi-dimensionality of vulnerability in the rural context. As a result, there is no effort to identify other vulnerable groups (e.g. nearly landless peasants), their current challenges and needs, and how rural development strategy might impact or improve their living conditions.

The remainder of the SPAT document focuses on agricultural modernisation, intensification, professionalisation and enterprise development to transform the primary sector into a growth engine. Growth is expected to emerge from two sources, “those which are linked to export potential within the commodity chains and those which are related to internal market development” (GoR, 2004B:vii). The commodity chains to be promoted include maize, rice, and traditional export crops such as tea and coffee, exactly the crops where SPAT foresees a major private sector role (GoR, 2004B: 20-21). SPAT also puts effort into developing integrated livestock systems and exploiting opportunities for agribusiness (e.g. fruit processing enterprise) (GoR, 2004B: 39).

The SPAT strategies seem to be tailor-made for larger farmers whose farm structure and risk-coping abilities allow them

to invest in new, high-potential production systems. However, access to these modernised and professionalised techniques seems less straightforward for risk-averse small peasants. The SPAT document reflects two somewhat different views of smallholders' capacities to transform their agricultural production systems. Some parts recognise the constraints that small peasants face. The document, for example, refers to the lack of credit<sup>15</sup>, and the inability of smallholders to insure themselves against shocks and setbacks. However, it does not develop a strategic plan to assure access of these small-scale peasants to the modernised production techniques that rural policy makers promote. Other parts of the document mention the ignorance and resistance of peasants to adopting recommended productivity-enhancing measures that go beyond traditional subsistence farming (e.g. see GoR, 2004B:6,17). As such, their lack of capacity to embrace 'modernised' farming is attributed to a 'wrong mentality' problem, a view that disregards the institutional barriers these peasants face.

In fact, Rwanda's rural policy has the ambition to reduce the agriculture-dependent population to 50% by 2020, considerably less than today's 87% (GoR, 2004A; GoR, 2004B). The plan foresees that a growing primary sector will then "create progressive development of secondary and tertiary sectors in rural areas, which could help create employment outside agriculture" (GoR, 2004B:59). The land policy takes it further, "... the Rwandan family farm unit is no longer viable. ... The re-organization of the available space and technological innovations are necessary in order to ensure food security for a steadily and rapidly increasing population" (GoR, 2004C:16). This process is described by Alison Des Forges as the government's ambition to "winnow out the chaff" (Des Forges, 2006).

SPAT, in terms of budgetary commitments, also mentions how "allocation of government financial resources will be done with priority towards most competitive actions and productions" (GoR, 2004B: viii). This objective is translated into budgetary planning (Table 5). The 'pro-poor' sub-program (SP16) represents only 1% of the total SPAT budget, clearly not the first priority in financial terms. Next to one-quarter of the budget allocated to management costs, the top priorities for the coming years are the promotion of fertilisers and mechanisation, and the promotion of research for agriculture and livestock development. The main objective of the fertiliser strategy is to increase chemical fertilizer use from 10 to 42 kg per hectare per annum over the next five years, which could, indeed, also reach small-scale peasants. However, a further in-depth analysis of constraints on fertiliser use is necessary. By putting the blame on peasants' supposed ignorance regarding the profitability of fertiliser use, other institutional barriers are ignored (e.g. their lack of purchasing power, the limited or

<sup>15</sup> Less than 2% of total credits allocated in 2003 go to the agricultural sector. Only 8% of those loans concern amounts less than 20.000 frw (US\$ 25). Small farmers are unlikely to borrow more than this amount (GoR, 2004B).

non-availability of access to credit and insurance mechanisms to overcome setbacks, etc.).

## 2.2. The land policy and land law

The recently-adopted land policy and law show a similar commitment in favour of competitive and commercial farmers. The land law was adopted in 2005<sup>16</sup> after a long process of drafting and negotiation, and seeks to formalize land rights through official titling. During the elaboration phase of the land law, the PRSP stated that “the design of the land policy to encourage security of tenure is central” (GoR, 2002B:36). The new land law aims to break with a past of informal land arrangements and transfers built upon customary traditions. Although customary land rights are recognized as a basis for acquiring official rights, land registration is made compulsory; and in the future, land arrangements are to be regulated through formal legal procedures (article 26). The Rwandan government hopes that secure official land titles will encourage increased investment in land conservation and quality improvements (GoR, 2004C:24). However, in line with the new law, official titles can only be acquired through a formal procedure of registration with proof in the form of a certificate. More privileged groups have a clear advantage to use this as an additional tool in their “struggle for land”. Studies that largely praise the beneficial effects of official land registration recognize the problem of unequal access to information in the registration process, “the introduction of a modern registration system to replace a customary (and typically less formal) system may provide opportunities for ‘land grabbing’ by those who are better informed, are more familiar with formal processes, and have better access to officials and financial means to undertake procedures for registration” (Feder and Nishio, 1998: 38).

The land law further aims at solving the problems of land fragmentation and unproductive use. Fragmentation of land holdings has long been a major problem in Rwanda. The previous land policy (dating from March 1976) aimed to counter this by only allowing land transfers (with specific permission) when the seller’s property remained at a minimum of two hectares, and when the buyer had no more than two hectares<sup>17</sup> (article 2-3 of the Décret-Loi n°09/76, March 1976). Given that average land holdings in the 1970’s were around 1.4 hectares per household, this policy aimed at a redistribution of land by restricting transfers from the land-poor to the (relatively) land-rich. The question is, however, to what extent this policy was followed. The informal land market, which emerged during the period to arrange the transfer of land titles, even with written documents used as validation, almost never followed formal policy prescriptions (Platteau, 2000).

<sup>16</sup> Its full name is the Organic Law determining the use and management of land in Rwanda (N° 08/2005 of 14/07/2005, GoR, 2005). It was published on 15 September 2005 in the Official Gazette of the Republic of Rwanda. A previous version of the land law and policy was also summarised in Rwanda’s Poverty Reduction Strategy Paper (GoR, 2002).

<sup>17</sup> The law (Décret-Loi n°09/76, March 1976) states, « nul ne peut céder ses droits par la vente, si ce n’est par une autorisation préalable et écrite du Ministre... » (article 2), and, « le Ministre ayant les terres dans ses attributions ne peut accorder l’autorisation prévue ... que pour autant que: (1) le vendeur justifie garder à sa disposition une superficie minimum de deux hectares; (2) l’acheteur présente un motif valable d’acquisition, notamment n’être pas en possession d’un terrain d’une superficie de plus de deux hectares ... » (article 3).

The new land policy tackles the problem of land fragmentation in a very different way. Article 20 prohibits dividing land parcels of one hectare or less. For the division of plots between one and five hectares, the owner has to apply to the land commission for authorization. However, this rule does not apply to cases where authorities, “approve the consolidation<sup>18</sup> of small plots of land in order to improve land management and productivity” (article 20). The Rwandan government thus aims for the consolidation of small parts of land into larger plots, and for the consolidation of land into the hands of fewer, more efficient farmers. The land law, for example, sets no upper limits on the maximum size of landholdings. A ceiling of 50 hectares foreseen in an earlier version of the new land law did not appear in the final approved version. The objective behind this choice appears clear: create economies-of-scale. Larger plots would become suitable for more modern intensive techniques. Larger farms could be managed more productively and become professional partners with agribusiness concerns. (In section 3, we will question these assumptions.)

<sup>18</sup> Land consolidation is defined by the land law as, “a procedure of putting together small plots of land in order to manage the land and use it in an efficient uniform manner so that the land may give more productivity.” (Organic Law N° 08/2005 of 14/07/2005, article 2).

Will the prohibition to divide plots of less than one hectare have serious consequences for the majority of Rwandan peasants? The average total land surface occupied by rural households is well below one hectare (in 2000, an average of 2.44 plots). By 2002, land holdings had become even more fragmented (calculations based on Food Security Research Project agricultural dataset, 2000-2002). By the letter of the law, small-scale landholders in times of setbacks would only be allowed to sell their integral plot so as to avoid further land fragmentation. Further, their chances of buying back land would be diminished, as they would either have to buy an adjacent plot or a plot of one hectare in total.

The new land law includes another ‘guarantee’ for sound land management by giving the authorities the right to “impose sanctions ... against the landlord or any other person allowed to lease the land who fails to respect the obligation of efficiently conserving the land and productively exploiting it” (article 73). Productive land use, appropriate protection and sustainable productivity mean, “to protect it (i.e the land) from erosion, safeguard its fertility and ensure its production in a sustainable way” (article 62), and “shall be based on the area’s master plan and the general structure on land allocation, organization and use and [the adoption of] specific plants certified by relevant authorities” (article 63).

The goal would be for each region to specialize in certain specific crops based on agro-bio-climatic conditions and in accordance with market needs. The local authorities, in the name of the local peasants, will determine which crop(s) the region has a comparative advan-

tage in. In SPAT, a pilot exercise with a few districts resulted in the identification of three agricultural products per district. The document mentions the need to guide producers in their choice towards commercial production systems and away from subsistence agriculture (GoR, 2004A). This seems to be a first indication that the participation of peasants in the choice of those crops would be limited.

The strategy of specialization could however indeed result in economies of scale in terms of production and could increase the commercial bargaining position of local farmers on regional markets. On the other hand, the strategy should regard possible variations in soil types and climatic conditions within a local setting(s). Forcefully restricting farmers to a few crops at an aggregate scale might thus make little sense. An additional concern is whether small-scale, non-commercial peasants will be able to confine themselves (even partly) to the prescribed crops, as they usually opt for a diversification in crop types based on risk-averse considerations. If the new policy does not offer them any additional risk-insurance, they will not be inclined to go for crop specialization. Another important question is whether small-scale peasants will be able to defend their interests on the regional markets, or whether power positions in the bargaining process over food prices will be occupied by intermediary traders.

In some regions, peasants are already obliged by the authorities to abandon and even destroy certain food crops. For example, in early January 2007 the Governor of the Eastern Province, Mr. Mutsindashyaka, initiated a ban on sweet potatoes. Though the Minister of State for Agriculture later withdrew this declaration (New Times, 2007), such campaigns can and generally do cause a lot of uncertainty and fear among local peasants.

When land is not effectively conserved and productively used, or in more specific terms when it is degraded or has not been used for 3 consecutive years, the land law provides for sanctions. These typically take the form of requisitioning the land for a period of 3 years (article 74). Local authorities are delegated extensive powers over managing, requisitioning and even reallocating land, "The requisitioned land may be entrusted to another person who so requests and who demonstrates ability to efficiently conserve the land and productively exploit it" (article 74). This legislation gives local authorities considerable freedom in interpreting specific situations according to their own agenda(s). Further, in cases of dispossession, the owner can only request for repossession in writing, explaining how he or she will commit him/herself to the productive exploitation of the plot in question. When rejected, the only further option is to appeal to court. The formality of these procedures typically leaves little room for illiterate peasants with limited means to pursue their cases.



### 3. TRANSFORMING THE RURAL SECTOR: THE POOR AT THE FOREFRONT OR REMAINING OFFSTAGE?

The preceding analysis suggests that current ‘agricultural transformation policies’ tend to enhance the opportunities of high-potential larger farmers at the expense of smaller-scale peasants. The principal issue is whether small-scale peasants are indeed less productive in output terms when compared to larger farmers. In fact, this is not the case in the current Rwandan context when considering productivity in terms of output per land unit. This is even recognised by SPAT which states, “small production units perform better per land unit than larger ones” (GoR, 2004B:10). The following table illustrates that the land-poorest quintiles are the most productive, both in terms of kilocalories produced per hectare, as well as in terms of added value (frw) of production per hectare. This can partly be explained by the fact that smaller farmers tend to have soils of better quality than larger farmers. But even when this factor is considered, the land-poor quintiles are still more efficient per land unit<sup>19</sup>.

**Table 6: Inverse relationship between farm size and productivity for all crops (2001 figures)**

Land quintiles	Median land occupied <sup>20</sup>	Median added value of production (frw)		Median caloric value of production (Kcal)	
	Hectares	Per hectare	Per corrected hectare*	Per hectare	Per corrected hectare*
1	0.17	379,437	351,007	4,635	4,408
2	0.35	257,534	252,430	3,839	3,689
3	0.56	173,071	178,455	3,106	3,281
4	0.90	145,035	157,610	2,842	3,078
5	1.66	86,877	91,614	1,692	1,720
<b>Total</b>	0.56	173,071	175,641	3,098	3,210

\* Accounting for differences in soil quality: land surface is multiplied by a soil quality index (above one for households with higher than average soil quality, and below one for households with lower than average soil quality).

Sources: Calculations for median added value of production per hectare are based on the combined EICV – FSRP dataset (2001). Calculations for median caloric value of production per hectare are based on FSRP (2001) and FAO (2007) datasets.

However, Rwandan policy makers count on the high growth potential of larger farms to significantly upgrade their productivity, which should have a strong positive effect on aggregate output growth. Conversely, we found that before the implementation of these policies the participation effect of agricultural growth in poverty reduction has been disappointingly low for the post-war period. The main question is thus how rural policy, by focussing upon these high-potential larger farmers, will affect the well-being of the majority of

<sup>19</sup> Small-scale farmers are more productive in terms of output per land unit, but not in terms of output per unit of labour. The Rwandan countryside is characterised by high underemployment, certainly in small-scale farms. For those households, the marginal increase in output when adding additional labour is extremely limited due to a lack of land.

<sup>20</sup> It is important to mention that the largest farm included in this analysis occupies only 9 hectares, which is still far less than the large-scale cattle farms that can, for example, be found in Umutara. The sample on which these data are based only includes rural households. Large-scale farms are however often owned by urban-based agricultural investors. This explains why they do not appear in the sample.

non-competitive, non-professional, subsistence-oriented rural agents. The rural sector is predominantly populated by “small family farms (over 90% of all production units) ... with an average of less than one hectare in size, integrating polyculture – animal production systems” (GoR, 2004B:10). Most of these families depend, to a large extent, upon subsistence production and are found among the 66% group of ‘rural poor’. The nationwide Participatory Poverty Assessment (PPA) exercise (2001-2003) provides further details on the different categories of peasants in Rwanda (Table 7).

**Table 7: Population groups defined by PPA methodology**

	Category	Characteristics
1.	Umutindi nyakujya	Destitute, beg for their livelihood, no land, no animals, live from working on other peoples’ lands, but not very capable in terms of labour, ignorant, not respected, discriminated, look like “fools” <sup>21</sup> .
2.	Umutindi	Very poor, live from working on other peoples’ lands, very little land with low harvests, no animals, no access to health care or schooling.
3.	Umukene <sup>22</sup>	Poor, land to produce food for their family but no surplus for the market, often work for others, have no savings.
4.	Umukene wifashiye	Poor with a bit more land, few animals, besides subsistence production they have a small income to satisfy a few other needs, (e.g. school fees for children).
5.	Umukungu	Rich in terms of food security, large farms (often with banana or coffee groves and/or forest), rich soils, some animals, enough food, employ others on own farms, at times get access to paid employment (higher-skilled jobs), have savings.
6.	Umukire	Rich in terms of revenue, land, animals, monetary revenue (coming from paid employment as civil servants or in trades), savings at official banks, their prosperity often pushes them to migrate to urban centres.

Source: Reformulated from GoR, 2004B:12-13; and GoR, 2001.

There are no aggregated country-level data on the proportion of each farmer type in the total household population. However, SPAT mentions that about 11.5% of all households are landless (GoR, 2004B:10), and thus would normally fall in the “umutindi” category. During own field research in six imidugudu<sup>23</sup> in the Southern province<sup>24</sup> (May-July 2007), we counted the frequency of each category. In five out of six, the majority of the households were classified in the “umukene” categories<sup>25</sup>. The “umukungu” and “umukire” categories together accounted for a very small part of the total population.

Our main goal is now to analyse how agricultural growth has/will affect the well-being of these different categories of peasants. When growth results from increased efficiency and productiv-

<sup>21</sup> The tone of this description is based on the Summary Document (GoR, 2004B), not on the author’s own opinion. The description of this category as described in the document, was reproduced by interviewees during field work undertaken by the author in 2006. However, in one of the cellules the author visited, the interviewees stressed on the fact that in their village there are no “umutindi”. Due to the negative connotation of this word, they invented a category of ‘umukene nyakujya’ (very poor).

<sup>22</sup> Umukene is the kinyarwanda word for “poor”, the plural is “abakene”.

<sup>23</sup> Rwandan households are typically scattered over the hills. The umudugudu (plural: imidugudu) is the administrative division that corresponds with one or a few hills. The boundaries of the umudugudu after the administrative reform often concur with the boundaries of what was called the cellule before the administrative reform (2006), at least in the rural setting.

<sup>24</sup> Before the recent administrative reform (2006), Rwanda was divided into 11 provinces. After the reform, there are 4 provinces. The previous provinces Gitarama and Gikongoro, where the research was undertaken, now fall largely within the boundaries of the Southern Province.

<sup>25</sup> In the poorest of the six imidugudu, the majority of the households were classified in the umutindi category.

ity - central objectives in Rwandan rural policies - then its impact on household incomes is twofold. On the one hand, there is a **direct effect** on agricultural output (i.e. a first-order effect) combined with induced changes in prices, wages and employment (i.e. second-order effects - Christiaensen and Demery, 2006). Although these second-order effects receive little attention in the literature, they may be very important in helping to measure the pro-poor effects of agricultural growth, as shown by Minten and Barrett (2006). On the other hand, growth in the agricultural sector might also induce growth in rural non-farm sectors by increasing demand for non-agricultural products and services, and by facilitating the supply of such products and services due to lower nominal wages (i.e. an **indirect effect**, see Christiaensen and Demery, 2006; Delgado et al., 1998 and Byerlee, 2005). A second type of indirect effects, omitted in the literature, is the impact of rural policies on the bargaining position of different farmer types. Changes in power relations may have a strong effect on their on-farm activities, off-farm employment, and overall well-being. Each of these effects requires further examination.

The direct first-order effect of increased crop productivity positively affects those farmers with landholdings. However, as highlighted in several studies, the impact of this effect depends upon the initial distribution of land (Ravallion and Datt, 2002; Deininger and Squire, 1998 and de Janvry and Sadoulet, 1996), and upon the participation of the poorer farmer categories in productivity gains (World Bank, 2005). Given Rwanda's policy focus on larger farmers, with their greater (presumed) potential for professionalisation, productivity gains will not be equally distributed over all farmer groups.

Increased agricultural output will further result in downward pressure on food prices. The impact of lower food prices on a farmer's welfare depends upon whether the farmer is a net food seller or a net food buyer and is dependent upon the price elasticity of demand. However, little is known about the price elasticity of food in the Rwandan context. Inflation or deflation of food prices mostly affects those households that are active on the monetary food market. The majority of small-scale peasants is not, however, among that group. For them, food price changes may have an indirect effect upon exchanges in the non-monetised barter economy, a sector that is, until now, poorly understood (GoR, 2002).

Declines in food prices, in turn, allow nominal wage rates for unskilled labourers to fall. As a result, the demand for such labour may increase; certainly when agricultural growth is reinvested into the expansion of agricultural activities. For Rwanda, Mellor (2002A) estimates that a projected 5.3% agricultural growth in output would

result in a direct 3.2% increase in on-farm employment. On the other hand, the supply of unskilled labour is already extremely high in rural areas, and will only increase when a growing number of peasants becomes (near)-landless. Further, employment in the agricultural sector is mostly limited to daily wage labour (typically paid in cash, though sometimes only with food). Only extremely poor households generally undertake these informal food-for-work jobs. The availability of informal money-for-work jobs is highly volatile and uncertain. People in less-skilled agricultural jobs most often do this work on a temporary basis for low wages. Moreover, “having to work on someone else’s field” strongly diminishes a person’s perceived social status in Rwanda. Agricultural jobs are linked with “being poor” and one’s inability to “take care of oneself” (GoR, 2001). Table 8 illustrates this: the percentage of extreme poor (22.4%) involved in these jobs is higher than the percentage of non-poor (10.1%). Table 9 illustrates that the hourly wage rate of informal, less-skilled agricultural jobs is much lower than informal jobs in the non-farm sector.

**Table 8: Percentage of rural households involved in different income-generating activities (2001 data)**

% of households with revenue from:	Extreme poor	Poor	Non-poor	Total
Revenue from agr. sales	57.1	69.8	76.4	67.1
Revenue from livestock	18.8	23.1	32.5	25.0
Revenue from non-farm enterprise	7.0	11.6	12.4	10.2
Revenue from skilled jobs	0.6	2.3	7.6	3.6
Revenue from less- skilled non-agr. jobs	6.0	8.3	9.8	7.9
Revenue from less- skilled agr. jobs	22.4	14.6	10.1	16.1
Of which permanent employment	5.2	4.1	4.3	4.7
Of which temporary employment	18.1	10.9	6.0	12.0

Remarks: The extreme poor are defined as those living with less than 175 frw (US\$ 0.28) per adult equivalent per day; the poor as those living with 175 – 250 frw (0.28 US\$ 0.28 – 0.40) per adult equivalent per day; the non-poor as those living with more than 250 frw (US\$ 0.40) per adult equivalent per day. Amounts in frw are based on 2006 prices, and would correspond with 123 frw (instead of 175 frw) and 175 frw (instead of 250 frw) in 2001 prices.

Source: McKay income estimates based on EICV dataset (2001).

**Table 9: Income per hour for different types of jobs (2001 data)**

Median payment per hour	Frw / hour
Formal job, skilled	129
Informal job, skilled	58
Informal job, less-skilled, non- agricultural, permanent	39
Informal job, less-skilled, non- agricultural, temporary	46
Informal job, less-skilled, agricultural, permanent	31
Informal job, less-skilled, agricultural, temporary	31

Source: Calculations based on EICV dataset (2001).

Taken together, the main question relevant to the Rwandan peasant is whether the direct impact of the second-order effects (i.e. price and wage changes) in combination with the first-order effect (i.e. increased output) is positive or negative (Christiaensen and Demery, 2006). To determine this requires first to differentiate between various types of farmers. We adapt the typology of Christiaensen and Demery (2006) to the Rwandan context (Table 10) and combine it with the PPA categories.

**Table 10: The direct impact of increased productivity in the agricultural sector (as outlined in current rural policy) on different types of farmers in Rwanda**

PPA category	Umutindi	Umukene	Umukene wifashiye	Umukungu	Umukire
<b>Land</b>	Landless or marginal landowners	Land owners (S)	Land owners (S)	Land owners (M)	Land owners (L)
1st order effect (output increase)	0	0	0	+	+
<b>Food</b>	Net food buyers	(Almost) self-sufficient	Self-sufficient / net food sellers	Net food sellers	Net food sellers
2nd order effect (price changes)	+ ?	(Almost) 0	0 / -	-	-
<b>Employment in off-farm agricultural sector</b>	Employed (often temporarily - paid in kind)	Full time / temporary - paid in money	Not full time / temporary - paid in money	Not, but they may be employers	Not, but they may be employers
2nd order effect (wage change)	-	-	-	+	+
<b>Likely overall direct impact</b>	+ / -	-	-	+	+

Symbols: (S) = small-scale, (M) = medium-scale, (L) = large-scale.  
Source: Reinterpretation from Christiaensen and Demery, 2006.

For the Umutindi categories, the picture is somewhat complex. Given their landless status, they are unaffected by the first-order effects of increasing productivity. Whether they gain or lose depends upon whether the positive effect of decreased food expenditures is greater or smaller than their loss in wage income<sup>26</sup>. The overall direct effect of agricultural growth on this category is therefore unclear.

For both Umukene categories, the first-order effects of increased productivity could be positive if these peasants would directly participate in agricultural growth. However, it is unlikely that these groups will play an important role in commercialised and professionalised agriculture. The potential for the rapid spread of new agricultural techniques (e.g. fertiliser use) to smaller peasants is extremely limited. The financial capacity of the 'abakene' (i.e. the plural of umukene) to invest in such technologies is also limited due to other expenditures that are considered more urgent (e.g. education of children). Rural credit and insurance systems could compensate for such a lack of financial capital, but they are not open to poorer groups (Mellor, 2002). The second-order effects of price and wage changes, on the other hand, negatively affect the well-being of these households. In instances of occasional production surpluses, the abakene will have more problems to compete with the lower-priced food of more professional farmers. As a result, market access for this category will deteriorate, which will further push these peasants into a "subsistence-agriculture trap", and limit their potential to diversify towards more commercially-oriented crops.

Finally, the Umukungu and Umukire categories of farmers have the highest chance of profiting from both the land and agricultural policies. In most cases, these households have the means to increase their landholdings and invest in new production techniques. Moreover, they are less bound by risk-averse considerations than the other categories. This gives them the opportunity to follow the new commercial orientations promoted by the government. As a result, their output should increase, thus protecting their share on a more competitive food market with reduced prices. As potential employers, they will likely face lower wage costs, which should allow them to further expand their agricultural activities by hiring additional labour.

Overall, the direct impact of the new rural policies seems rather positive for more prosperous farmers, while discriminating against the poorer categories. However, there is also an indirect impact of agricultural growth on the well-being of different categories. Christiaensen and Demery (2006) divide this trickle-down effect into three sub-groups: the inter-sectoral linkages (i.e. forward linkages to agro-processing and backward linkages to supply sectors); the final

<sup>26</sup> Over the last few years, food prices have highly increased. Wages for unskilled agricultural labour have also gone up, but relatively much less than food prices. One might expect that when food prices decrease (due to increased productivity), a similar relationship would hold; meaning that the wage rate would decrease but proportionally less than food prices. This evolution would turn out positively for the umutindi category. However, in field research interviews (May-July 2007), the umutindi categories in several of the six imidugudu mentioned the lack of bargaining power as one of the main reasons why their wages had not increased with approximately the same percentage as food price inflation. Therefore, it is highly unsure whether a decrease in food prices would turn out positively for this category, given that the supply of labour will further increase as more people get of land (see later). This would negatively affect the already limited bargaining power of the umutindi category in wage negotiations.

demand effects (i.e. increased agricultural incomes lead to increased demand for local non-farm products); and the wage effects (i.e. wage decreases in non-agricultural sectors).

Mellor (2002) focuses on one of these indirect effects, highlighting the derived impact of agricultural growth on the non-agricultural sector. He argues that a major increase in production, and thus in the incomes of more prosperous farmers, should have a considerable and favourable indirect impact upon employment and poverty reduction for small-scale farmers, through increased demand in the non-farm sectors. He quantifies this indirect impact; estimating that projected agricultural growth of 5.3% would produce (substantial) employment growth of 6.0% in the labour-intensive, rural non-farm sector (Mellor, 2002A).

In the current economic environment, however, jobs are much scarcer than what Mellor estimates<sup>27</sup>. Nonetheless, Mellor expects this off-farm sector to boom as a derived effect of increased agricultural growth. He states, “Although increased incomes may commence in the hands of the already more prosperous, that does not decrease the efficacy of the employment impact. That is because even those with large holdings by Rwandan standards are still small farmers who are fully integrated into their rural communities” (Mellor, 2002A:17). He stresses that for agricultural growth to deliver increased employment and poverty reduction, a crucial assumption must be met: growth should be realised mainly by farmers<sup>28</sup> who reinvest their profits in the local non-farm market; which in turn increases the overall demand for labour and the wage rates of the so-called ‘labouring class’. However, the increased well-being of more prosperous farmers may reduce their embeddedness in the local rural community. One of the characteristics of the Umukire category, mentioned in the Participatory Poverty Assessment and by many respondents in field research (May–July 2007), is that households in this category tend to migrate to urban centres. It is thus unclear whether these richer farmers will spend their additional incomes on rural goods and services, or, instead, on ‘urban status symbols’.

Overall, it is thus doubtful whether agricultural growth will rapidly flow down to poorer farmers. Moreover, there will be other indirect effects, such as changes to bargaining positions between different groups of farmers. When larger farms receive the main benefits from agricultural growth and are transformed into highly-productive units, they will tend to drive less commercial and market-oriented farmers out of the market. Thus, as already mentioned, abakene categories might become trapped in self-subsistence farming; unable to surmount barriers towards commercially-oriented farming. Moreover,

<sup>27</sup> In Mellor 2002B, 46% of the labour force (equal to 41.4% of the rural labour force) is assumed to be employed in the rural non-tradable sector. In Mellor, 2002C, 15% of the labour force is assumed to be unemployed, resulting in an employment rate of 31% of the labour force in the rural non-tradable sector (equal to 27.9% of the rural labour force). These figures are very different from the data in Table 8 indicating that 7.9% of all households are involved in less-skilled non-agricultural jobs and 10.2% generate revenues from non-farm enterprises.

<sup>28</sup> “Prospering farmers in low-income countries spend about 20 percent of incremental income on labor-intensive, livestock and horticultural products and 40 percent on rural non-farm goods and services. Rich landowners, on the other hand, typically spend incremental income on imports and capital-intensive manufactures. It is the peasant farmers’ purchases of locally-produced, labor-intensive items that generate employment.” (Mellor, 2002A: vii).

in a nation of extreme land scarcity, richer high-potential farmers, with their financial power, will be able to block the necessary expansion of small-scale subsistence-oriented farms and, in the long-run, may render them unprofitable.

The danger exists that current rural policies will increasingly enfeeble small-scale peasants. Many may, at some time, be forced into distressed land sales and, without realistic prospects for re-purchase, will lose their self-subsistence productive capacities and livelihoods. As a result, the number of employment seekers would grow, thus even further depressing wage rates. Overall, these processes will result in a 'survival of the fittest'; or more accurately a 'survival of the largest' within the agricultural sector, with alternative employment unsure for those disregarded by these new rural policies .

#### **4. CONCLUSION: OUTPUT GROWTH VERSUS EQUITY CONSIDERATIONS - AN UNAVOIDABLE TRADE-OFF?**

The concluding action plan of the SPAT identifies, "the conciliation of the commercial orientation with the development orientation" as a major challenge for agricultural policy making. But based on the observations made in this paper, we conclude that the pro-poor ambition of the current agricultural policy remains largely rhetoric. It lacks strategic plans and budgetary commitments to counter those undesirable processes that weaken or threaten peoples' livelihoods and lives. The recently adopted land policy and law show a similar discrepancy between pro-poor rhetoric on one hand and actual commitments in favour of competitive and commercial farmers on the other. Rwanda's rural policies focus on maximum output and growth, without regard for equitable wealth distribution. This paper has illustrated how so-called pro-poor policies can introduce or reinforce institutional barriers for many, while facilitating access and enhancing opportunities for the few. This might render vulnerable those who are not so yet ; it might also force existing vulnerable groups into a poverty trap; and finally it might even increase conflict-risk by enlarging the mass of rural poor with few if any employment chances outside the agricultural sector.

This brings us to our first concluding question: is there, indeed, an unavoidable trade-off between output growth and equity considerations, or are there alternatives that combine both? Rural policies might have aimed for empowering and actively involving the large community of small-scale peasants in agricultural development strategies. Many have a high productive capacity but are confronted with institutional constraints in diversifying their activities away from



subsistence production. This would, however, require a complete reversal of the current rural policy logic. A crucial step then lies in defining institutional barriers for divergent farmer groups; and in analyzing how specific policies could remove those barriers. It would, perhaps, result in more modest growth projections for the agricultural sector, and should still, indeed, be combined with ‘charity measures’ for marginalised groups without much productive potential (e.g. due to lack of physical capacity). But it would certainly result in a more equitable distribution of agricultural growth and could pro-actively prevent households from falling into the vulnerability trap. By removing institutional barriers for many instead of for the few, rural policy would acknowledge the ability of the large number of rural peasants to seize the opportunities at their disposal.

A second intriguing question is why current Rwandan policy makers do not take this alternative into consideration. Answering this question requires insight into the political economy of the current Rwandan society. There are two main features that characterise the current power holders, a largely urban-based elite. First, policy makers are strongly convinced of the “trickle-down” potential of rapid agricultural growth. This vision coincides with the ambitions of Rwanda’s elite to develop a “new” economy and transform their country. Other illustrations of this can be found in the first PRSP. There, for example, information technology development is identified as an important activity to help move (or “jump”) Rwanda’s subsistence-based economy to a “service-sector driven, high-value added information- and knowledge-based economy that can compete on the global market” (GoR, 2002: 69). Current Rwandan policy makers adhere to the idea of social engineering through law, as conceived by Roscou Pound (1968). They see policy and law as tools for shaping society, but often neglect the local conditions and institutional environment into which new laws and policies are to be implemented. This contextual background preconditions the potential effectiveness of all new policies in achieving their goals.

Another feature of the current Rwandan elite is their limited connection with rural life. Pre-1994 elites had strong roots in rural Rwanda, though this often resulted in preferential treatment for certain regions over others, depending upon the power holders’ origins. On the other hand, it brought them closer to rural life and the problems Rwandan peasants were confronted with. Unlike their predecessors, current elites have very few ties with Rwandan rural life. Many come from neighbouring countries where they lived either in urban areas or in dissimilar rural environments (e.g. as cattle farmers). As a result, ties between the Kigali-based “elites” and ordinary Rwandan subsistence peasants are weak.

This has two major consequences. First, it has led to the paternalistic view of Rwanda's urban elite regarding peasants' ability to realize modern agricultural opportunities. Even official policy documents refer to the ignorance of peasants and their resistance to embrace new productivity-enhancing measures that go beyond their traditional subsistence farming logic. In its most blatant form, this conviction reduces the problem of rural poverty to one of bad mentality. The second result is that urban elites have little personal interest in improving living conditions for the rural masses. Whereas the pre-1994 elite largely depended upon a rural power base to maintain their position, the current elite depends almost exclusively upon an urban peer group and the international donor community for support.

The stated ambition of EDPRS policy is to “refocus on equitable growth, sustainable development, and poverty reduction”, with rural development as an important priority<sup>29</sup>. Striving for pro-poor growth, however, cannot be restricted to “looking for growth in the sector where the poor are located”. The major challenge for policy makers and international donors is to shift their attention away from a purely output-led logic of agricultural transformation towards more integrating, distribution-oriented rural development policies. In other words, the challenge is to reconcile efficiency in creating economic growth with equity, and perhaps, to put equity first.

<sup>29</sup> Various documents explaining the logic and planning of the EDPRS process can be found on [www.devpartners.gov.rw/edprs.php](http://www.devpartners.gov.rw/edprs.php).

## BIBLIOGRAPHY

- Abdulai, A. and CroleRees, A. (2001). *Determinants of income diversification amongst rural households in Southern Mali*, **Food Policy**, 26 (4), pp. 437-452.
- Adams, R.H. (2004). *Economic Growth, Inequality and Poverty: Estimating the Growth Elasticity of Poverty*, **World Development**, 32(12), pp. 1989-2014.
- Agriculture PRSC Policy Matrix 2005**, April 2006, online at: [http://www.devpartners.gov.rw/clusters/Rural\\_Dev/](http://www.devpartners.gov.rw/clusters/Rural_Dev/).
- Ansoms, A. (2007). *How successful is the Rwandan PRSP? Recent Evolutions of Growth, Poverty and Inequality Briefing*, **Review of African Political Economy**, 111 : 371-379.
- Ansoms, A. (2005). *Resurrection after civil war and genocide: growth, poverty and inequality in post-conflict Rwanda*, **European journal of development research**, 17 (3), pp. 495-508.
- Blarel, B. et al. (1992). *The economics of farm fragmentation – Evidence from Ghana and Rwanda*, **World Bank Economic Review**, 6 (2), pp. 233-254.
- Byerlee, D. et al. (2005). **Agriculture, Rural Development, and Pro-poor Growth: Country Experiences in the Post-Reform Era, Agriculture and Rural Development** Discussion Paper, Nr. 21, Washington D.C., World Bank.
- Cassimon, D. et Marysse, S. (2001). *Evolution socio-économique au Rwanda et au Burundi (2000-2001) et la politique financière internationale*, **L'Afrique des Grands Lacs: Annuaire 2000-2001**, eds. S. Marysse and F. Reyntjens, Paris, L'Harmattan.
- Christiaensen, L. and Demery, L. (2006). *Revisiting the Role of Agriculture in Poverty Reduction in Sub-Saharan Africa*, unpublished paper.
- Deininger, K. and Squire, L. (1998). *New Ways of Looking at Old Issues: Inequality and Growth*, **Journal of Development Economics**, 57(2): , pp. 259-287.
- Delgado, C.L. et al. (1998). **Agricultural Growth Linkages in Sub-Saharan Africa** , IFPRI Research Report 107, Washington D.C., International Food Policy Research Institute.
- De Janvry, A. and Sadoulet, E. (1996). **Growth, Inequality and Poverty in Latin America: A Causal Analysis 1970-94**, Working Paper 784, Berkley, University of California.
- Des Forges, A. (2006). *Land in Rwanda: Winnowing out the chaff*, **L'Afrique des Grands Lacs: Annuaire 2005-2006: Dix ans de transitions conflictuelles**, eds. F. Reyntjens and S. Marysse, Paris, L'Harmattan.
- Draft minutes of the Rural Development Cluster meeting on 25/01/2006*, Kigali.
- Evans, A. et al. (2006). **Independent Evaluation of Rwanda's Poverty Reduction Strategy 2002-2005 (PRSP1)**, Final Report, Brighton-London, Overseas Development Institute and the Institute of Development Studies.
- FAO (2007), **Nutritive factors**, online at: <http://www.fao.org/es/ess/xxx.asp>.
- Feder, G. and Nishio, A. (1998). *The benefits of land registration and titling: economic and social perspectives*, **Elsevier Science**, 15:1, location, pp. 25-43.
- Food Security Research Project, 2000-2002*, Agricultural dataset.
- Foster, J. et al. (1984). *A class of decomposable poverty measures*, **Econometrica**, 52 (3), location, pp. 761-766.
- Gallup, J. et al. (1997). **Economic Growth and the Income of the Poor**, **CAER II** Discussion Paper No. 36, Cambridge, Harvard Institute for International Development.

- Government of Rwanda (2007A). **Economic Development and Poverty Reduction Strategy 2008-2012**, Ministry of Finance and Economic Planning, preliminary draft June 2007.
- Government of Rwanda (2007B). **Letter of Intent, Memorandum of Economic and Financial Policies, and Technical Memorandum of Understanding**, 10 January 2007, online at [www.imf.org](http://www.imf.org).
- Government of Rwanda (2006A). **Preliminary Poverty Update Report: Integrated Living Conditions Survey 2005/06**, Kigali, National Institute of Statistics, Rwanda.
- Government of Rwanda (2006B). **Letter of Intent, Memorandum of Economic and Financial Policies, and Technical Memorandum of Understanding**, 18 May 2007, online at [www.imf.org](http://www.imf.org).
- Government of Rwanda (2005A). **Poverty Reduction Strategy Paper - Annual Progress Report**, IMF Country Report No. 05/127. Washington D.C., IMF.
- Government of Rwanda (2005). **Organic Law determining the use and management of land in Rwanda** (N° 08/2005 of 14/07/2005), Kigali: Official Gazette of the Republic of Rwanda.
- Government of Rwanda (2004A). **National Agricultural Policy**, Kigali, Ministry of Agriculture and Animal Resources.
- Government of Rwanda (2004B). **Strategic Plan for Agricultural Transformation in Rwanda**, Kigali, Ministry of Agriculture and Animal Resources.
- Government of Rwanda (2004C). **National land policy**, Kigali, Ministry of Lands Environment, Forests, Water and Mines.
- Government of Rwanda (2002). **Poverty Reduction Strategy Paper, National Poverty Reduction Programme**, Kigali, Ministry of Finance and Economic Planning.
- Government of Rwanda (2001). **Participatory Poverty Assessment, National Poverty Reduction Programme**, Kigali, Ministry of Finance and Economic Planning.
- Government of Rwanda (2000). **Vision 2020**, Kigali, Ministry of Finance and Economic Planning.
- Irz, X. et al. (2001). *Agricultural Productivity Growth and Poverty Alleviation*, **Development Policy Review**, 19 (4): pp. 449-466.
- IMF (2006A). **Rwanda: Joint Staff Advisory Note of the Poverty Reduction Strategy Paper Annual Progress Report**, IMF Country Report No. 06/246, Washington, D.C., IMF.
- IMF (2006B). **Sixth Review Under the Three-Year Arrangement Under the Poverty Reduction and Growth Facility**, IMF Country Report No. 06/245, Washington, D.C., IMF.
- IMF (2005A). **Rwanda: Joint Staff Advisory Note of the Poverty Reduction Strategy Paper Annual Progress Report**, IMF Country Report No. 05/174, Washington, D.C., IMF.
- IMF (2005B). **Fifth Review Under the Three-Year Arrangement Under the Poverty Reduction and Growth Facility**, IMF Country Report No. 05/333, Washington, D.C., IMF.
- IMF (2004A). **Rwanda: Joint Staff Assessment of the Poverty Reduction Strategy Paper Annual Progress Report**, IMF Country Report No. 04/274, Washington, D.C., IMF.
- IMF (2004B). **Rwanda: Selected Issues and Statistical Appendix**, IMF Country Report No. 04/383, Washington, D.C. IMF.
- Kakwani, N. and Pernia, E.M. (2000). *What is pro-poor growth?*, **Asian Development Review**, 18(1): pp. 1-16.

- Klasen, S. (2003). **In Search of the Holy Grail: How to Achieve Pro-Poor Growth?**, Ibero-America Institute for Economic Research Discussion Papers, Nr. 96, Göttingen, Ibero-America Institute for Economic Research.
- Kraay, A. (2006). *When is growth pro-poor? Evidence from a panel of countries*, **Journal of Development Economics**, 80 (1): pp. 198-227.
- Kuznets, S. (1973). *Modern Economic Growth – Findings and Reflections*, **American Economic Review**, 63 (3), pp. 247-258.
- Mellor, J.W. (2002A). **How much employment can rapid agricultural growth generate? – Sectoral policies for maximum impact in Rwanda**, Agricultural Policy Development Project- Research Report No. 13, Prepared for the United States Agency for International Development / Rwanda.
- Mellor, J.W. (2002B). **The impact of agricultural growth on employment in Rwanda: A three-sector model**, Agricultural Policy Development Project-Research Report No. 14, Prepared for the United States Agency for International Development / Rwanda.
- Mellor, J.W. (2002C). **Productivity increasing rural public works – An interim approach to poverty reduction in Rwanda**, Agricultural Policy Development Project- Research Report No. 15, Prepared for the United States Agency for International Development / Rwanda.
- McKay, A. and Loveridge, S. (2005). **Exploring the Paradox of Rwandan Agricultural Household Income and Nutritional Outcomes in 1990 and 2000**, Staff Paper 2005-06, Michigan, Michigan State University.
- Minten, B. and Barrett, C. (2006) **Agricultural Technology, Productivity, and Poverty in Madagascar**, Working Paper 179, Cornell, Cornell Food and Nutrition Policy Program.
- Mwabu, G. and Thorbecke, E. (2004). *Rural development, growth and poverty in Africa*, **Journal of African Economies**, 13, pp. 16-65, Supplement 1.
- New Times (2007). **No ban on sweet potatoes**, Kigali, 26/01/2007.
- OECD (2006). **Promoting Pro-Poor Growth: Policy Guidance for Donors**, Paris, OECD.
- Page, J. (2006). *Strategies for pro-poor growth: pro-poor, pro-growth or both?*, **Journal of African Economies**, 15 (4): pp. 510-542.
- Platteau, J.P. (2000). **Institutions, Social Norms and Economic Development**, London, Routledge.
- Pound, R. (1968). **Social control through law**, Hamden, Conn., Archon.
- Purcell, R.. et al. (2005). **Rwanda Final Country Report: Joint Evaluation of General Budget Support 1994-2004**, International Development Department, Birmingham, University of Birmingham.
- Ravallion, M. (2001). *Growth, Inequality and Poverty: Looking Beyond Averages*, **World Development**, 29 (11), pp. 1803-1815.
- Ravallion, M. and Chen, S. (2003). **Measuring pro-poor growth**, World Bank Policy Research Working Paper 2666, Washington, D.C., World Bank.
- Ravallion, M. and Chen, S. (1997). *What can new survey data tell us about recent changes in distribution and poverty?*, **World Bank Economic Review**, 11 (2), Washington, D.C., World Bank, pp. 357-382.
- Ravallion, M. and Datt, G. (2002). *Why Has Economic Growth Been More Pro-Poor in Some States of India than Others?*, **Journal of Development Economics**, 68 (2): pp. 381-400.

Rutagwenda, J.P. (2006). **Analyse des Performances du Budget en Agriculture entre 2002-2005**, Presentation made at the conference “Revue des performances du PRSP / Agriculture joint sector 2002-2005”, 29 - 30 May 2006, Kigali.

Ruzindaza, E. (2006). **Présentation de la revue du Secteur Agricole 2002-2005**, Presentation made at the conference “Revue des performances du PRSP / Agriculture joint sector 2002-2005”, 29 - 30 May 2006, Kigali.

Thirtle, C. et al. (2001). **Relationship between Changes in Agricultural Productivity and the Incidence of Poverty in Developing Countries**, Report to DFID Natural Resources Policy Research Programme, Project R7946.

UNDP (2007). **Turning Vision 2020 into Reality: From Recovery to Sustainable Human Development, National Human Development Report Rwanda 2007**, United Nations Development Programme Rwanda.

World Bank (2006). **World Development Indicators**, CD-ROM.

World Bank (2005). **Pro-Poor Growth in the 1990s: Lessons and Insights for 14 Countries**, Washington D.C., World Bank.

World Bank (2000). **Attacking poverty, World Development report 2000/2001**, Oxford, Oxford University Press.

Yaro, J.A. (2006). *Is deagrarianisation real? A study of livelihood activities in rural northern Ghana*, **Journal of Modern African Studies**, 44 (1), pp. 125-156.





University  
of Antwerp



INSTITUTE OF DEVELOPMENT  
POLICY AND MANAGEMENT