

Methods to Monitor and Evaluate the Impacts of Agricultural Policies on Rural Development



Foreword

This study was conducted under Output Area 3.2.3: Agriculture Sustainability (Output Result 1) of the Programme of Work and Budget of the Committee for Agriculture for 2007-08, and will form part of the synthesis report on the *Impacts of Agricultural Policies on Rural Community Well-being*, which will be provided as background to the Policy Forum of the Committee for Agriculture in November 2009.

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Executive Summary

The objective of the study is to examine the diverse evaluation approaches which have been developed – both in the academic literature and by the governments of member countries – to assess the impact of agricultural policies and policy reform on rural development. The main points emerging from this analysis can be summarised as follows:

- The impacts of individual agricultural policy measures with respect to stated rural development objectives are not easy to assess quantitatively because rural development objectives are often very general in nature and also due to the complex relationships involved in isolating the net effects of particular measures from the contextual effects;
- OECD member countries have broadly similar rural development objectives, but they differ widely in the emphasis they place on these objectives and also in the importance they accord to the role of agriculture and agricultural policies in their efforts to achieve them. Infrastructural development is a cornerstone of rural development policies in several OECD member countries;
- Agriculture and agricultural policies in Japan and in the EU play a predominant role in rural development policy, while in Australia, Canada and the United States rural development policy is largely community or place-based, where there is no tradition of linking rural development policy to agricultural policies;
- In terms of financial support, the role of the private sector and local government in rural development is relatively greater in Australia, Canada and the United States than in the EU and Japan;
- Agricultural policy reform in many OECD countries is decoupling support from commodity production and shifting support to other criteria, such as land. This is expected to have implications on land-use, farm practices and rural development;
- The set of agricultural policies that include rural development as a specific objective embraces a wide diversity of rural development policy approaches. While in the EU, agri-environmental policy is an integral part of EU rural development policies, in Australia and the United States, although agri-environmental policy is important, it is separate from rural development policy.
- While several academic studies have evaluated the impact of the whole set of agricultural policies on rural development, member countries mainly evaluate only those agricultural policies which include rural development as an explicit objective, such as the rural development programmes in the EU. Evaluation of rural development programmes within the EU is required by EU legislation within an established framework, while in other countries evaluation is less formal.
- The specific difficulties which confront any assessment of the impacts of reformed agricultural policies on rural economies relate to complexity, embedding, multiple layers of causality, systemic impacts and dynamic effects.

- Agricultural policies are often evaluated in terms of their intended specific agricultural objectives rather than in terms of rural development objectives. As such, these evaluations do not capture the full contribution to rural development.
- Evaluation of agricultural policy reform should not solely rely on simple performance indicators, but should also explain how policy reform interacts with the structure and performance of the local rural economy and other policy impacts. This suggests a need for outcome oriented evaluation.
- Many problems remain and there are still hurdles to be overcome before the evaluation of rural development policies becomes a rigorous and meaningful activity. The main problems outstanding arise from lack of knowledge of the causal pathways associated with different measures, and the difficulty of identifying their impacts on a territorial basis (*i.e.* according to rural areas, which may be quite small and/or difficult to delimit in a relevant way). In addition, the use of different methodologies to evaluate different policies, together with the fact that rural development policies have multiple outcomes, makes comparisons cumbersome.

Chapter 1. Introduction

In many OECD countries, agricultural policies are currently undergoing a process of reform, evolving a shift from traditional market price support and output-related measures towards sector-wide, non-commodity-specific policies, some of which are more targeted to rural development and environmental objectives than traditional commodity-linked agricultural policies. Nevertheless, the sector-specificity of these policies – and their economic cost – have raised questions about their effectiveness in addressing non-agricultural objectives, including rural development.

Recent policy reforms have reduced and re-oriented – but not eliminated – support for the farming sector from direct intervention in agricultural markets: to an extent, this has heightened the responsiveness of resource allocation in agriculture to market signals. Alongside and supporting these changes, supplementary policies are emerging to facilitate adaptation and improved productive efficiency, and to take into account the externalities and public goods associated with farming. Support based on commodity output is often combined with payments for environmental management, for diversification of farm businesses and for non-farm economic development in rural areas, mostly sourced from within the budgets of the departments responsible for agricultural policy.

However, alongside this evolving framework of policy, other influences are affecting the structure of farming and management of farmland. Changing consumer demands and aspirations, allied with supply chain consolidation and development, have shifted the balance of value-added creation. Some have suggested that price support itself has accelerated trends towards capital-intensity and farm-holding enlargement in farming systems, and contributed to more technologically advanced production (taxation and land-use planning policies also having had an impact) (Blandford and Hill, 2005a; OECD, 1995). While these changes have been gradual, the recent heightened concern over climate change and growing bio-energy production could trigger further economic restructuring in agriculture, although the future shape of the sector is as yet uncertain.

The impact of these changes on rural areas are uneven and depend on the opportunities stemming from local mosaics of urban centres, their spatial distribution, and the quality of access to rural areas through transport infrastructures.¹ This is reflected in the OECD's (2006b) discussion of a new paradigm for rural policies and governance, where rural conditions are categorised into four broad sub-types: *dynamic remote rural regions* which, while distant from metropolitan centres, have positive resource characteristics enabling them to flourish; *lagging remote rural regions* which, because less well-endowed, exhibit traditional difficulties of rural decline; *dynamic intermediate regions* which, benefit from urban proximity and consequently exhibit strong growth; and *lagging intermediate regions*, also close to urban areas but in a state of transition following decline of primary or state enterprise activity.

To some extent, recognition of these changes has become apparent in the objectives for reformed policies. The traditional focus on the enhancement of the incomes of farm households, price stability and food security has to varying extents switched towards the welfare and prospects of all inhabitants of

1. Reimer (2002) identifies differences in impacts and responses to economic challenges to rural areas resulting from specific conditions, capacities and available options.

rural areas, farm and non-farm; and, recognising the diversity of rural circumstances, there is some evidence of a shift from sectoral to territorial and ultimately to local policy implementation, in which the social and cultural dimensions of rural development feature as much as the economic (Trouvé *et al.*, 2007; Hodge and Midmore, 2006).

It might be expected that the shifting focus raises further issues, since the beginning of a move away from commodity support overlaps with enhanced general measures to promote improved rural economic welfare, and also mainstream public service provision in health, education and public infrastructure, whose applications are affected by how they are delivered in a rural context (OECD 2003; 2006b).

Rural policies ideally need to evolve in a manner which reflects the changing nature of rural economic structure, activity and prospects. Useful insights on the nature and direction of this evolution can be obtained from a better understanding of the impact of agricultural policy reform, its accompanying measures to mitigate any adverse consequences, and their interplay with market, technological, social and other influences, on rural economic performance.

Governments in several OECD countries are increasingly aware of the importance of monitoring and evaluating their policies – including agricultural policies – and are devoting considerable efforts to strengthening their monitoring and evaluation systems and capacities. They aim to improve their performance through establishing evidence-based policy-making, evidence-based management and evidence-based accountability (OECD, 1999).

Within the OECD Secretariat, specific aspects of agriculture and rural development are being covered by various activities in the Trade and Agriculture Directorate (TAD) and the Public Governance and Territorial Development Directorate (GOV), particularly with regard to the annual work on agricultural policy monitoring and evaluation, multifunctionality, farm incomes and the impact of agricultural policies on employment and land-use (undertaken in TAD); and the thematic reviews on rural development (*e.g.* rural governance, rural amenities and rural indicators); territorial reviews focused on specific rural areas in OECD member countries; and country reviews of rural development policies (undertaken by GOV).

Notwithstanding these activities, the issue of the tools and methodologies used to evaluate rural development impacts of agricultural policy and policy reform has not been extensively addressed. To date, the OECD has conducted very few evaluative studies on the rural territorial impacts of agricultural policies and policy reform. To a considerable extent, evaluative studies have focused primarily on the impacts at the national aggregate level, with only a limited number specifically concentrating on the disaggregated spatial impacts. For example, the analytical tools and models, such as the PSE database, AGLINK, PEM and GTAP models, are being used to examine the production, trade and income effects of different support measures at the national and global levels.

Nonetheless, three studies, two of which form part of the 2007-08 PWB of the Committee for Agriculture, on the impacts of agricultural policies on rural well-being have focussed explicitly on the rural implications of agricultural policies. First, in the late 1990s, the OECD Secretariat produced a study on the impact of agricultural policy reform on the rural economy in OECD countries (OECD, 1998). Using qualitative economic reasoning and drawing on the results of other studies available in the literature and material from six case studies, it analysed the linkages between agricultural policies and the rural economy and the effectiveness of traditional agricultural support policies in meeting rural development objectives.

The second study, *Farmland Conversion: The Spatial Dimension of Agricultural and Land-use Policies*, provided an economic analysis of the spatial implications of agricultural policy; the effects of land-use policies on agriculture; discussed a variety of factors that influence the conversion or preservation of farmland in OECD; and presented some concrete country/policy examples. Its main

objectives were to: analyse how agricultural policies and policy reform affect the environmental aspects of land-use changes at both the extensive and intensive margins; review country experiences and provide up-to-date information on the agricultural and non-agricultural policy approaches used to address environmentally sustainable land-use management; and to draw implications for policy design and policy coherence of agricultural and other policy measures (such as zoning), in order to achieve environmentally sustainable land-use management. The analysis developed a typology of three types of land-use management practices: i) land management in naturally handicapped and mountainous areas (the extensive margin); ii) land management in the rural-urban fringe; and iii) land management in areas with intensive specialised or diversified production systems (farmland with no significant opportunity cost, but whose value in production is high enough to ensure that it remains in agriculture).

An analysis of the effects of policies on on- and off-farm diversification of farm households was undertaken in the study “The Role of Agriculture and Farm Households in Rural Economies: Evidence and Initial Policy Implications” (TAD/CA/APM/WP(2009)1/FINAL). The analysis is based on a compilation of a variety of sources of information, including the results of questionnaire sent to all OECD member countries.

The OECD has, however, conducted more evaluative studies focused on agri-environmental policy. For example, one of the objectives of the Workshop on Evaluating Agri-environmental Policies, held in 2004, was to review and analyse the tools and methods used for the evaluation of agri-environmental policy measures in OECD countries (OECD, 2005). It is worthwhile to mention here some of the key conclusions regarding the approaches, tools and methods used for the evaluation of agri-environmental policy measures, as they are also applicable for the evaluation of the rural impacts of agricultural policies: A wide variety of different methodologies can be used to evaluate agri-environmental policies; whatever the methodology used, evaluators need to be transparent about the assumptions they make; both *ex ante* and *ex post* evaluations have been used in the policy development process; effective evaluation requires an inter-disciplinary approach, including the linking of economic modelling and with biophysical process models; many of the evaluations are undertaken within governments; one of the common limitations of the evaluations was that the goals and objectives of agri-environmental policies are often not explicit, specific or measurable; a major challenge is to undertake the evaluations in a timely manner, but as the environmental outcomes are part of natural processes, it can be a long time before the effects begin to materialise; while spatially distinct data and tools are needed to evaluate environmental effectiveness, the lack of good quality data was often noted; the evaluations tend to focus more on the environmental effectiveness of policy measures rather than on their economic efficiency and very few studies undertaken benefit valuation (in monetary terms).²

One of the key issues identified as meriting more analysis at the OECD Workshop on the *Coherence of Agricultural and Rural Development Policies* held in October 2005 in Bratislava was the need for more work in the area of monitoring and evaluation of the impact of agricultural policies and policy reform on rural development (OECD, 2006a). Because of the growing institutional complexity in terms of levels of governance and policy objectives, in the context of the marked spatial diversity of rural areas across OECD member states, monitoring and evaluation approaches are needed to ensure that policies are cost-effective. But an essential prerequisite of such monitoring and evaluation is a clear specification of rural development objectives by countries.

2. Since this Workshop, work has been undertaken in TAD to develop analytical tools and methods to evaluate the impact of agri-environmental policies. This work encompasses the creation of a quantitative model that takes into account, *inter alia*, the heterogeneity of land in terms of environmental impacts.

Conceptually, there are four broad types of policies that can have a potential impact on the economic performance of rural areas:

- a) Agricultural commodity policies, and the reform of such policies, which indirectly have rural development impacts through their effects on the use of land, labour, capital and farm practices;
- b) Agricultural policies, including adjustment policies, that have rural development as an explicit objective;
- c) Cross-sectoral rural development policies that treat rural areas as a territorial space (place-based policies); and
- d) Macro or economy-wide policies, including broad regional development policies.

The study is concerned with the first two sets of policies, with a particular focus on the methods used to monitor and evaluate the impacts of those agricultural policies which identify rural development as one of their objectives. More specifically, the study aims to examine the diverse evaluation approaches which have been developed – both in the academic literature and by the governments of member countries – to assess the impact of agricultural policies and policy reform on rural development, with particular reference to the diversity of situations across OECD countries and the various reforms underway.

The overall study is structured as follows:

- Chapter 2 describes the processes of rural economic change, and the role which agriculture plays within them.
- Chapter 3 discusses the role of agricultural policies in rural development in Australia, Canada, the European Union (EU), Japan, Norway, Switzerland and the United States.
- Chapter 4 presents evaluation approaches used by governments in Australia, Canada, the EU, Norway, Switzerland and the United States.
- Chapter 5 endeavours to review the concept of policy evaluation and highlights the key principles underpinning the concept.
- Chapter 6 examines the overarching issues involved in evaluating the rural development impact of agricultural policies and policy reform. It also examines critically how evaluation of the impact of agricultural policies on rural development has been dealt with in the academic literature.
- Finally, drawing from the previous analysis, Chapter 7 suggests a list of guidelines for developing good policy evaluation practices.

Chapter 2.

The Evolving Role of Agriculture in Rural Economies

Rural development policy encompasses actions or initiatives designed to enhance the quality of life and the overall well-being of the inhabitants of the countryside (OECD, 2003; 2006a). OECD countries share many general objectives for rural policy. Countries are concerned with alleviating rural poverty, boosting rural employment, stemming out-migration, providing housing, improving rural infrastructure, developing human capital, maintaining an attractive countryside, and protecting the environment. But the countries differ in the relative emphasis they put on the different objectives, and they also differ in their vision of the role of agriculture and agricultural policy in promoting these objectives.

In several OECD countries, there has been an evolution in the perception of the role of agriculture in promoting rural development. Rural development and farm policy have traditionally been viewed as synonymous and often, “rural development” is an activity within “agriculture” ministries and government departments. Public policy has focused on commodity-oriented programmes on the assumption that they would promote rural development through on-farm and off-farm economic activities, such as: upstream and downstream linkages associated with handling, distribution, transportation, and processing of agricultural products; provision of inputs to the farm sector, and ancillary services; the spending of farm households; and also through the environmental public goods resulting from farming.

But in economic terms, agriculture is no longer a dominant segment of the rural economy and in several OECD countries there has been a growing recognition among stakeholders that commodity-based programmes have not achieved all the desired goals in rural areas (OECD, 1998; 2006a; 2006b). The declining economic contribution of farming to overall economic activity, the evolving demographic profile of rural areas, shifts in employment, personal mobility and new rural land-uses, budget constraints, public concerns, and restrictions imposed by international trade agreements have all combined to stimulate governments to re-examine the role of agriculture in promoting rural development.

Processes of rural economic change in OECD countries exhibit some common features, although with a wide degree of variation in terms of absolute and relative levels. Fewer people work in agriculture and farms are becoming larger; of 20 OECD member countries described the share of the workforce in predominantly rural regions has fallen from 13% in 1990 to 9% in 2000 (OECD, 2006b).³ The largest recorded reduction over this period was in Belgium, where there were 64% fewer rural workers in agriculture in 2000 than in 1990.

Although in some countries, despite considerable reductions, high levels of the rural workforce remain engaged in agriculture, such as in Mexico (32%), Greece (30%) and Portugal (23%), in others there are small minorities, such as in Germany (3%), the United States (3%) and Sweden (4%). Within

3. Moreover, the linkages between the farm sector and its adjacent “upstream” and “downstream” sectors might be changing – as emerging new technologies tend to substitute farm-supplied inputs for purchased inputs – with important implications for the rural economy, depending on where these sectors are located (OECD, 1998; 2006a).

countries the degree of variation is likely to be even more striking. Nevertheless, it is important to note that farmers remain the overwhelmingly predominant users and managers of land, and as a consequence of the important environmental functions, including the provision of environmental public goods, are of considerably greater significance for rural economic performance.

In terms of overall rural economic performance, the 2006 OECD report noted that in OECD countries in 2000, rural incomes per head were only 83% of respective national averages, and, in more than half, this measure had declined between 1995 and 2000. Such aggregate measures mask rather better performance in individual rural regions which have been able to capitalise on rural amenities, and those where manufacturing growth has compensated for traditional rural disadvantages such as poor accessibility, outmigration and consequent aging of the population, and overdependence on low productivity sectors. However, the corollary is that other individual regions have fared much worse than average performance suggests.

What is clear is that the effects of agricultural policies and policy reform on the contribution of farming to rural economic activity depend on diverse contexts, potentials and opportunities which exist in separate cases (OECD, 1998). OECD countries have used a number of different approaches to offset or mitigate the impacts on rural economies of agricultural policy reform.

Blandford and Hill (2005*b*) provide selected case studies of farm adjustment policies in a number of relevant instances. Many offer financial compensation designed to reorient and diversify farm businesses, such as in Canada, where following the withdrawal of grain transportation subsidies in 1995, a fund was created to support primary producers and processors and to improve infrastructure; and in the United States where abolition of peanut marketing quotas was accompanied by an effective buy-out to promote new sources of farm and non-farm income. However, in the special case of New Zealand, withdrawal of almost all financial assistance from 1984 to 1987 was accompanied only by hardship grants for the worst-affected, exit assistance and financial counselling.

Blandford and Hill argue that often the impact of agricultural policy reform on farm businesses is overestimated and that exposure to market pressures lead ultimately to new and more profitable farm and off-farm enterprises, including contract operators (although Smith, 2006 provides an alternative perspective). In the EU, concerns for the social and cultural importance of farming have led to some emphasis on specific support for farm business reorientation as mainstream commodity policies have been gradually withdrawn. Such “accompanying measures” have been gradually extended and now, as well as encompassing exit and entry measures for farming, on-farm investment and processing and marketing, aid farmers to improve the quality of their production and collaborate in promoting it, and include some modest supports for rural infrastructure and community development. In the United States, however, differing social values have led to less emphasis on community sustainability, since continuing in-migration, sufficient space for settlement and private services development favour a looser, more localised approach (Blandford and Hill, 2008).

Therefore, across the OECD area, there is a spectrum of engagement with agricultural policy reform; all countries have begun the process of reducing commodity support payments, but some are further along the road than others, there has been differential impact according to agricultural activities affected, and a range of different techniques have been used to mitigate the effects on both farm and non-farm rural economy. Understanding of how these changes work through rural economic processes requires a clear perspective on the functioning of rural economies themselves.

The shift, albeit gradual, of agricultural and rural development policies from a sectoral to a territorial focus requires evaluation of different policy approaches to try to establish which mix of policies will best achieve agricultural and rural development objectives in diverse contexts. So far, decoupling and transfer of resources to rural development objectives are poorly understood, as far as they contribute to economic evolution in rural areas. Although there is increasingly less direct

dependence on farming and forestry activities, their indirect contribution to the quality of rural life and the competitiveness of other rural activities will remain important, and the uniqueness of economic structure in each rural situation suggests that decision-making should be at as local a level as possible (Hodge and Midmore, 2006).

Tracing the impact of reformed agricultural on rural development through a complex set of intersecting businesses, transactions, infrastructures, social and environmental systems to ascertain outcomes is clearly a task which is risky when it relies on generalised suites of indicators, where the scope for misinterpretation would be considerable. Understanding the evolution, structure and function of such diverse rural economies can best be achieved through a mixture of quantitative and qualitative analysis.

Chapter 3.

Links between Agricultural Policies and Rural Development Policies: Country Examples

Rural development has a large number of connotations and the term "rural development policy" is frequently used to refer to a wide variety of government interventions; many policies labelled rural development are actually focused on other issues. For example, "rural development policy" is often used interchangeably with regional policy; or "rural development policy" is used in relation to traditional agricultural policies and environmental policy. Moreover, there is a lack of clarity concerning rural development policy objectives and measures aimed at "development" and those aimed at "management" (OECD, 2006a). This chapter provides some country/region examples on how rural development policy is defined, with particular focus on the role of agricultural policies.

3.1 Australia

Australia does not have an integrated national rural and regional development policy as such: rather, the focus is on assisting individual regions to determine their own future. Rural and regional development policies are distinct from agricultural, fisheries and forestry policy, and from other regional industry policy, such as mining and tourism. Rural and regional industry policy is designed to ensure the on-going competitiveness, profitability and sustainability of industries. Rural and regional development policy supports communities through infrastructure development and adequate service provision.

The objective of rural policy is to promote self-reliant, competitive and sustainable rural businesses and industries through the development of integrated policies and programmes in the areas of capacity building, skills development, support for rural families in adverse circumstances, research and development, innovation and biotechnology. Rural development objectives in Australia are primarily addressed by policies aimed at assisting regions to realise their potential and manage their own future.

The Department of Infrastructure, Transport, Regional Development and Local Government is the main Commonwealth Government body with responsibility for rural development. The Department works with local government to facilitate rural and regional development. The Regional Development Council is the ministerial body of Commonwealth and State ministers responsible for rural and regional development. Area consultative committees (soon to be known as "Regional Development Australia" committees) facilitate interaction between government, business and the community. Regional development programmes focus on infrastructure development in rural and regional areas.

The Department of Agriculture, Fisheries and Forestry's (DAFF) role is to develop and implement policies and programmes which ensure that Australia's agricultural, fisheries, food and forestry industries are self-reliant and which improve their productivity, international competitiveness, profitability and sustainability. DAFF's agricultural productivity focus promotes integrated policies and programmes in the areas of capacity building, skills development, support for rural families in adverse circumstances, research and development (R&D), innovation and biotechnology. DAFF's programmes offer incentives and assistance to help primary producers, fishermen and small rural businesses to

identify ways to manage change and adjustment. DAFF also provides policy advice on a range of rural issues – particularly economic, taxation and regulatory issues – and is responsible for ensuring that rural industry perspectives are taken into account in the development of domestic innovation, science and technology initiatives. A further suite of programmes delivered in partnership with the Department of the Environment, Water Resources, Heritage and the Arts delivers targeted support for environmental management that assists the natural resource sustainability of agriculture.

DAFF delivers agricultural, fisheries and forestry programmes through a range of mechanisms, such as direct delivery; funding through community-based committee arrangements; and joint delivery with states and territories. The programmes involve direct financial assistance, grants, direct loans and loan guarantees. DAFF also supplements funding for R&D, which is financed largely by funds collected through industry levies.

The Agriculture Advancing Australia (AAA) was a key component of DAFF's activities (www.daff.gov.au/agriculture-food/aaa).⁴ The AAA, launched in 1997 and reviewed in 2004, is a package of programmes that promotes capacity building and risk management skills of primary producers. It included a welfare safety-net for individual producers undergoing severe financial hardship, and income and business support for rural enterprises where “exceptional circumstances”, such as drought, significantly affected regions or industries. It also included initiatives for rural women and young farmers. Some examples of specific programmes in the AAA package include: i) the *Farmhelp Program*, which provided re-establishment grants to farmers wanting to exit farming; ii) the *Farm Management Deposits Scheme*, which provided a tax deduction benefit for farmers; and the *FarmBis Program*, which helped eligible primary producers, fishermen and rural land managers to develop business and natural resource management skills through funding assistance for education and training activities.

Australia's Farming Future is the Australian Government's climate change initiative for primary industries. It provides AUD 130 million over four years to help primary producers adapt and respond to climate change. The objective of Australia's Farming Future is to equip primary producers to adapt and adjust to the impacts of climate change. The initiative comprises a number of elements: i) The *Climate Change Research Program*, which will provide funding for research projects and on-farm demonstration activities; ii) *FarmReady*, which will help industry and primary producers develop skills and strategies to help them deal with the impacts of climate change; and iii) the *Climate Change Adjustment Program*, which will assist farmers in financial difficulty to manage the impacts of climate change. Farm financial assessments and professional advice and training are individually tailored to help farmers adjust to climate change and to set goals and develop action plans to improve their financial circumstances. Rural financial counsellors can assist eligible farmers to take action to improve their long term financial position. Re-establishment assistance provides farmers who sell their farms with assistance to re-establish themselves.

A variety of programmes and initiatives are also used by the Commonwealth, State and Territorial governments to facilitate adjustment through the encouragement of mixed-farming enterprises, in particular the development of farm forestry. These programmes include research, extension, capacity building, market creation and grants (see, for example, the *Joint Venture Agro-forestry Program*, www.rirdc.gov.au/programs/aft.html).

The Research and Development Corporations and Companies (RDCs) are the Australian Government's primary vehicle for funding rural innovation. RDCs provide a link between government

4. The Agriculture Advancing Australia (AAA) programme has been concluded and replaced by a suite of programmes including *Australia's Farming Future*. The Rural Financial Counseling Service Program, the International Agricultural Cooperation Program and the Farm Management Deposits Scheme will continue independently of the AAA package.

and industry and were created with the aim of sharing both the funding arrangements and organisation of the setting of planning for primary industry R&D, investment in R&D and the subsequent adoption of R&D outputs. They also address national R&D needs through the “Rural Research and Development Priorities”, which aim to achieve a common understanding in this area.

In 2007, following consultations with State and Territorial governments and stakeholders, the Commonwealth Government released a new set of Priorities. These Priorities focus on five major areas:

- Boosting productivity and adding value to production;
- Promoting effectively operating supply chains and markets for existing and new products;
- Encouraging strong and effective natural resource management;
- Building resilience to climate variability and climate change; and
- Protecting Australia from bio-security threats.

In 2008, the first meeting of the Australian Council of Local Government was held to discuss: i) the building of national and local infrastructure to boost economic capacity and improve the quality of life in communities; ii) how to tackle the immediate challenges facing major cities and growth corridors, including urban congestion, urban planning and design; and iii) steps towards constitutional recognition for local government.

3.2 Canada

Rural development in Canada no longer has the national public focus it did in the early years of Canada’s development, up until the mid-1900s (Freshwater, 2007). Historically, sector-specific policies such as agriculture, mining and fishing were the primary mechanisms through which the federal government had a direct effect on rural areas. Generally, federal intervention in the rural economy had been largely directed towards investment in large-scale infrastructure and industry projects, including agriculture.

An explicit federal rural policy approach is a fairly recent phenomenon, which began in the late 1990s (Matheson, 2006; OECD, 2006*b*). The new way of developing rural policy, which emphasises an integrated place-based approach to rural development, has shifted the focus from supporting sectors, to supporting community capacity to adapt and change. It promotes locally-driven economic growth, based on community self-reliance and supported by a more integrated set of mechanisms and tools to enable rural communities to make decisions about their own future.

Institutions were created to co-ordinate federal rural activities, including a Rural Secretariat within the Department of Agriculture and Agri-food and Canada’s first “horizontal” initiative, the Canadian Rural Partnership, which was established in 1998. The Canadian Rural Partnership has promoted greater consideration of rural issues and concerns in the design and delivery of federal policies and programmes. It encourages federal departments and agencies to scrutinise their policies and programmes through the “Rural Lens” checklist of considerations for determining whether a policy or programme addresses priorities for rural Canada (Government of Canada, 2005). The responsibility for rural development policy follows closely the legislative arrangement of agriculture and can be seen as a shared federal-provincial-territorial responsibility.

The link between agricultural policies and the promotion of rural development objectives is indirectly acknowledged in Canada’s agricultural policy framework. For example, the *Agricultural Policy Framework (APF)*, which provides the basic legislative framework governing major Canadian agricultural policies, encompasses programmes targeting several policy areas, such as business risk

management, food safety, environment, science and innovation, sector renewal. Although rural development is not part of these policy areas, the APF includes a focus on environmentally responsible agriculture and emphasises the importance of environment as an economic and social good for all rural communities (Matheson, 2006).

3.3 *European Union*

Rural development policy in member states is pursued at EU level – rather than at national or local level – within a formal framework established in EU legislation. EU rural development policy has its roots in socio-structural measures to promote greater efficiency in agricultural production, processing and marketing. In addition, the EU had pursued a parallel cohesion policy aimed at reducing disparities and promoting economic and social cohesion between regions (Hill, 2007).

Successive reforms of the Common Agricultural Policy (CAP) have led to a gradual broadening of its scope – originally a predominantly agricultural structures policy dealing with the structural problems of the farm sector, it now recognises the multiple roles of farming and also seeks to promote the economic diversity of rural areas. While there is an explicit recognition that “rural” is no longer synonymous with “agriculture”, agriculture nevertheless remains an essential element of rural policy because of the key role it plays in the management of natural resources and land-use in rural areas.

The EU’s rural development programmes financed by the CAP (commonly referred to as “Pillar II”) are concerned with not only the economic and social dimensions of the development of rural areas, but also the environmental aspects. Objectives such as preserving natural resources, maintaining the cultural heritage of the countryside, animal welfare, food quality and food safety also form an integral part of rural development policies.

In particular, the EU’s rural development programmes devote a major proportion of spending to agri-environmental schemes linked to landscape or biodiversity objectives. The enhancement of rural public goods contributes directly to the quality of life of countryside inhabitants, and can also generate the additional benefits of improved incomes from tourism or the development of differentiated forms of traditional farm products. In part, this policy development reflects a contemporary concern for sustainability, encompassing its economic, social and environmental components.

For the period 2000-06, Pillar II of the EU15 supported 68 rural development programmes, 89 Objective 1 programmes and 2 programmes with rural development measures, as well as 73 Leader+ programmes, with an indicative total budget of EUR 52.5 billion. Eight of the EU10 countries received their pre-accession aid for rural development in the form of Sapard and benefited as new member states from a temporary rural development instrument from 2004-06, with an indicative budget of EUR 6.8 billion. For the 2007-13 period, the indicative rural development budget is EUR 90.8 billion (around one-fifth of total EU spending on agriculture, with shares varying considerably across EU member states).

The new Rural Development Regulation (RDP) for 2007-13 (EC Reg. 1698/2005 and EC Reg. 1974/2006) aims to reinforce rural development policy and simplify its implementation. It has made some modifications to the funding mechanisms and objectives of Pillar II programmes, with the general aim of reinforcing the coherence between agricultural policy and rural development. The new RDP targets the wider rural population, strengthens the bottom-up approach and a single fund for rural development – the European Agricultural Rural Development Fund (EARDF) – has been introduced.

The new RDR focuses on three major objectives, which are reflected in three thematic *Axes*:

- Increasing the competitiveness of the agriculture and forestry sector (Axis 1). This includes measures for human resources (early retirement, young farmers, training and information and farm advisory services); physical capital (investments, processing and

marketing, infrastructure improvements); quality of agricultural production and products (support for farmers participating in food quality schemes); and transitional measures (support for semi-subsistence farmers in the new member states, setting-up of producer groups);

- Improving the environment and countryside through support for land management (Axis 2): This Axis includes measures for sustainable use of agricultural land (mountainous and less-favoured areas; other areas with natural handicaps; support for non-productive investments; agri-environmental measures; animal welfare payments; and support for Natura 2000 – measures to preserve biodiversity); and for sustainable forestry (afforestation; agro-forestry; Natura 2000 forest areas; restoring forestry production potential; and support for non-productive investments).
- Enhancing the quality of life in rural areas and promoting diversification of economic activities (Axis 3). This covers three groups of measures: quality of life (basic services for rural areas and population, renovation and development of villages, protection and conservation of the rural heritage); economic diversification (diversification to non-agricultural activities, support for micro-enterprises, agri-tourism); and training skills acquisition (training and information).

These thematic Axes – and particularly the third – are complemented by support for Local Action Groups (public and private partnerships) under the Leader programme (Axis 4). The Leader approach, which supports both agricultural and non-agricultural activities, is integrated into the mainstream of rural development programmes and each programme will contain a Leader axis.

Member states can choose the geographical level of programming – either one, national rural development programme for their territory, or several regional programmes. With the exception of agri-environment and animal welfare in Axis 2 (which are obligatory at programme level, but not for individual farmers), none of the mainstream rural development measures is compulsory. Each programme (and major programme modification) needs to be approved by the Commission.

Member countries are required to spend a minimum of 10% of their EARDF funds on Axis 1, 25% on Axis 2, and 10% on Axis 3: 5% (2.5% in the new member states) of the EARDF funds must be devoted to Leader initiatives and all projects are to be co-financed. The co-financing comes from several sources – EU, national, local and municipal government, as well as private funds. Depending on the Axis, between 20-55% (75% in “convergence regions”) of the funds are financed by the EU budget.

3.4 Japan

Rural development in Japan has a strong national policy focus. Depopulation, an ageing population, land abandonment and growing public concern over environmental problems are the main challenges facing rural areas. The Ministry of Agriculture, Forestry and Fisheries (MAFF) has responsibility for implementing rural development policies.

Rural development policy in Japan primarily consists of agricultural policy measures. The 1961 *Agricultural Basic Law* – which provided the legal policy framework for agriculture and rural development policies – focused solely on the improvement of agricultural productivity in an endeavour to narrow the income gap between the farming sector and other industrial sectors. While the current law, the *Basic Law on Food, Agriculture and Rural Areas*, enacted in 1999, maintains the central role of agricultural policies in rural development, its scope has been widened to include policy issues encompassing agriculture, food and rural areas (Saika, 2006; Kitahara, 2003). Moreover, the Rural Development Bureau has been established in the MAFF in order to co-ordinate rural development

activities with other Ministries and more responsibility has been accorded to local governments to encourage local initiatives.

The Law's stated objectives are two-fold: i) securing a stable food supply; and ii) fulfilling the multifunctional roles of agriculture. In order to achieve these two objectives the Law emphasises the importance of the sustainable development of agriculture and the development of rural areas and requires the government to draw up a Basic Plan for food, agriculture and rural areas every five years. The more recent Basic Plan, approved in 2005, emphasises the necessity to establish a comprehensive policy framework that co-ordinates agricultural policies and rural development policies, aiming at improving their efficiency and effectiveness.

In the field of agricultural policies, the Plan suggested the introduction of a new direct payment measure in 2007 to accelerate the structural reform of Japanese agriculture. Another important element of the Basic Plan is the proposed revision of the system of agricultural land ownership and land-use to promote more efficient use of farmland. This was prompted by the yearly reduction in the total area of land used for agricultural purposes that results largely from an increase in farmland abandonment and conversion to other purposes (OECD, 2009).

For rural development, the Plan highlights the necessary shift in policy emphasis from simply alleviating the economic disparities between rural and urban areas, towards respecting regional differences, promoting local initiatives and encouraging co-operation of urban dwellers and non-profit organisations. Four directions of rural development policies are indicated: 1) the conservation of rural resources such as land, water and landscapes; 2) the revitalisation of rural economies through the valorisation of unique local resources; 3) the promotion of partnership between rural and urban areas; and 4) the provision of the necessary infrastructure to improve rural living conditions. These directions are reflected in the rural development programme introduced in 2007 (OECD, 2009).

3.5 Norway

In Norway, regional and rural concerns have traditionally been important policy issues (OECD, 2007; Prestegard and Hegrenes, 2006). The Ministry of Local Government and Regional Development plays the dominant role in formulating rural development policy, which has evolved in relation to the regional policy, with its main objective being to maintain existing settlement structures and sustain viable local communities. However, food and agricultural policies play a crucial role in rural development policy as a whole, making the Ministry of Agriculture and Food an important ministry in rural policy-making.

Regional policy is divided into "narrow" and a "broad" policy (Refsgaard and Prestegard, 2008; Prestegard and Hegrenes, 2006). "Narrow" regional policy is carried out by the Ministry of Local Government and Regional Development and has a separate chapter in the state budget. Important measures are regional development grants to county municipalities, and compensation for regionally differentiated payroll tax.

"Broad" regional policy comprises sectoral policies that can affect the possibility of regional policy goals being attained (*e.g.* agricultural policy or transportation and communications policy). These measures fall into two broad categories:

- Category A: Measures that have localised policy aims, or that give preferential treatment to regions with weak industrial bases, small labour markets or which are located at some distance from larger centres.
- Category B: Measures implemented in order to compensate certain disadvantaged regions, or measures that affect some localities ("districts") which are also of particular importance for industrial development, local economies and settlement.

Agricultural policy comes under the category of “broad” regional policy. Regionally differentiated price support for milk, meat, eggs and vegetables is in Category A. Farms in central regions do not qualify for this support, while farms in northern Norway receive the maximum amount. The larger part of the agricultural policy measures falls within Category B. All farms are eligible to receive such support, with the rates normally being the highest for farms in remote areas. Acreage support, headage support, a special support for milk production, and vacation and replacement subsidies are the largest agricultural policy items in Category B.

Although the importance of the agricultural sector in Norway has diminished over time, agricultural policy remains strongly linked to rural development and regional policy. Within agricultural policy, the term “rural development policy” refers to describing policies created with the aim of maintaining existing agricultural activities, especially those located in the more remote areas, and to help farmers to start up new businesses.

Much agricultural policy derives its political support from the role Norwegian agriculture plays in rural development and production of public goods. To a large extent, rural development is an explicit aim of agricultural policy and is considered one of the multifunctional aspects of agriculture. Further agricultural support is partially differentiated according to production, geographical region and farm size. In general, smaller farms and farms located in the most remote regions have received relatively more direct payments than larger farms and farms in central regions.

An analysis of the regional policy component of agricultural support found that schemes aimed solely at regional goals were relatively small, accounting for only 5% of the agricultural support budget (Hegrenes *et al.*, 2002). This included regional price support to the milk and meat sectors to allow production to take place in more difficult and remote areas, including in the west and north. However, much of the other remaining forms of support have important indirect regional effects, with agricultural policy contributing significantly to employment in Norway’s sparsely populated areas.

3.6 Switzerland

Rural development policy in Switzerland, which attaches high importance to the preservation of its rural areas, is not enshrined in a single legal text, but rather, its respective instruments form part of various other policies addressing areas such as agriculture, forestry, spatial planning, regional, environmental and transport. An important feature of rural development policy in Switzerland is its broad focus on regional economic development, which is pursued through a cross-sectoral approach.

According to the Swiss constitution, agriculture is required to play an active role in attracting settlement in remote and economically disadvantaged areas. A study mandated by the Swiss Federal Office for Agriculture (and carried out by the Swiss Federal Institute of Technology) demonstrates that, in a number of regions, agriculture does indeed contribute to the viability of rural areas and settlement in the territory, especially in fragile mountain areas (Jung, 2006). However, it also states that, on its own the sector cannot ensure the decentralised settlement of the territory and advises that this aim should be complemented by regional policy measures.

Transport, in particular road construction, and agricultural direct payments are two major sectoral transfers for territorial development, accounting in 2000 for 21.1% and 12.5% of the total, respectively (OECD, 2000). In predominantly rural cantons, sectoral budgetary support for agriculture and national roads totalled more than half the total budgetary support allocated, while in predominantly urban cantons, a greater share of subsidies was devoted to social welfare and education.

Infrastructure development in rural areas is also supported by agriculture through budgetary support for agricultural roads, irrigation and improvement of farmland. Although the proportion of resources allocated to infrastructure improvement is relatively small when compared with other

agricultural expenditures (at around 5% of total agricultural expenditures), it nonetheless represents an important investment in individual rural areas (more than four-fifths of such expenditures were invested in hilly and mountainous areas, see OECD, 2000).

Both agricultural and regional policies are undergoing fundamental changes. While in agriculture the reform process was initiated more than a decade ago, the regional policy reforms were initiated in 1998. Switzerland did not have an explicit regional policy until the beginning of the 1970s, although the federal constitution has long contained a commitment to equity and “*protecting the economically threatened regions*”. Territorial issues were addressed by sectoral policies such as those concerning agriculture and public investment (*i.e.* roads), or the subsidised services of federal monopolies (*i.e.* railways or postal services). It was not until the late 1960s and early 1970s that regional policy and spatial planning were introduced separately, through constitutional amendments. Spatial planning was initially intended to organise urban areas and to protect rural areas from urban sprawl, whereas the aim of regional policy was infrastructure support for remote mountain regions. As in many other OECD countries, the objectives of regional policy in Switzerland were conceived in terms of reducing spatial disparities.

The scope of territorial policies fundamentally changed in the mid-1990s and the focus of policy shifted from disparity reduction to the promotion of efficiency, increased competitiveness and the creation of value-added in disadvantaged areas. This re-orientation of the regional policy was furthered by the New Regional Policy (NPR), which came into force in January 2008 (CRDR, 2008). As a result of this reorientation, new instruments going beyond infrastructure support were introduced, such as the provision of direct grants to both public and private regional bodies to facilitate “bottom-up” initiatives in the fields of education, training, research, know-how and technology transfer, regional networks and the effectiveness of local organisations.

With the NPR, the cantons have assumed a greater responsibility for the design, financing and implementation of regional policy and now have a key role to play in the conception, funding and implementation of rural development strategies in their regions. Furthermore, the federal offices are now requested to strengthen their co-ordination and the synergies between their activities. As a result, a network, the “Federal Network for Rural Development”, has been created by the four Federal Offices in charge of policies with a territorial impact (*i.e.* the State Secretariat for Economic Affairs, the Federal Office for Agriculture, the Federal Office for the Environment and the Federal Office for Spatial Development).

Concerning the evolution of agricultural policies, the core element of agricultural policy reforms was the substantial reduction of market support and the introduction of direct payments. Direct payments are not based on production, and reimburse farmers for the public goods and special ecological services they provide. Since 1999, all direct payments have been based on a stringent proof of ecological performance (cross-compliance).

The AP 2011 agricultural policy reform package, which provides the basic legislative framework governing agricultural policy for the period 2008-11, also includes a number of new “bottom-up” incentives to support agriculture in improving its value-added at the local level, such as: the provision of investment aids to farmers and small enterprises to increase value-added in mountainous areas through improved marketing and processing of agricultural products; the introduction of a new label for products produced in mountainous areas; increased incentives for individual and collective initiatives at the local level for programmes designed to promote biodiversity, the efficient use of ecological resources (targeted at those areas with ecological problems) and biomass production (*e.g.* by making investment aids available for biogas plants; loosening of building restrictions to improve the conditions for the development of farming-related activities, such as agro-tourism) (Jung, 2006; OFAG, 2007).

3.7 United States

Rural development in the United States no longer has a national public policy focus, as once was the case (Freshwater, 2007). While rural development used to be defined as agricultural development, little connection now exists between agricultural policy and rural development policy. Few strategies for rural development envision a significant role for farming, and the link between farm support and the promotion of rural development objectives in the legislation is much less explicit than in the EU. The US model relies to a greater extent on the role of private organisations and public-private partnerships in the promotion of rural development.

The 2002 Farm Security Act, for example, does not explicitly address the contribution of farm policy to rural development objectives. Moreover, the enabling legislation does not explicitly identify programmes aimed at encouraging sustainable agricultural and forestry practices, agri-environmental and food safety issues as “rural development”, as is the case in the EU. However, at State and local level in the US, farming’s contribution to rural development has been explicitly expressed in ways that mirror more closely the EU approach (Cochrane, Normile and Wojan, 2006).

The US Department of Agriculture (USDA) is the principal Federal agency with responsibility for rural development, as designated by the Rural Development Policy Act of 1980. However, many other Federal agencies administer some rural development programmes – the largest ones – aimed at rural development, including the Departments of Transportation; Small Business Administration; the Environmental Protection Agency; and the Departments of Housing and Urban Development, Labor, Commerce, Health and Human Services, and Homeland Security.

The Department of Transportation is the major source of funding on development projects in rural areas (Blandford, Boisvert, 2007). Within total USDA spending, rural development in 2007 accounted for 12%, of which around 90% is in infrastructure, including water, electricity, telecommunications and housing. Most federal rural development programmes provide funding directly to local or regional entities, such as individual businesses, governments, non-profit organisations, tribes or regional organisations. In addition, there are several federal-state partnerships that provide development assistance to rural (and urban) areas within single- and multi-state regions (*e.g.* the Appalachian Regional Commission, the Delta Regional Authority and the Denali Commission in Alaska).

USDA rural development programmes have two key objectives: i) to expand economic opportunities for rural residents by using USDA financial resources to leverage private sector resources and create opportunities for growth; and ii) to improve the quality of life, including housing, community utilities and supporting rural infrastructure (USDA, 2006). Key performance measures include the number of jobs created or saved, the number of home ownership opportunities provided and the number of rural residents served by USDA-financed facilities. USDA rural development programmes support all types of economic activity (on-farm and off-farm) and only a few are specifically targeted to the farm sector.⁵ Rural development programmes are delivered through field offices that are consolidated within USDA Service Centers. USDA also has a leading role in the co-ordination of rural development efforts among local, State and Federal levels.

USDA rural development programmes involve grants, direct loans, loan guarantees, and direct assistance. They provide financial and technical assistance to rural residents, businesses, and private and public entities for a variety of purposes, including infrastructure for meeting basic needs such as safe drinking water, electricity and telecommunications, housing, and business enterprises.

5. For example, the Farm and Ranch Lands Protection Program (FRLPP) explicitly espouses a rural development objective of preserving agrarian character.

Current USDA rural development programmes are grouped under four categories (USDA, 2006):

1. *Economic development*: Aimed at bringing new business and employment to rural areas and new opportunities for income enhancement;
2. *Infrastructure development*: Aimed at countering deficiencies caused by rural poverty or to equalize amenities with metro inhabitants;
3. *Special needs programmes*: Designed to provide individuals and communities without sufficient income access to some level of basic services such as housing, sanitation or health care; and
4. *Natural resource enhancement*: Aimed at improving services provided by the natural environment such as improving water quality and recreational opportunities.

Table 3.1 displays the main rural development programs administered by USDA, by type of support for FY 2007. Around 46% of USDA rural development programme funds are directed towards rural utilities and around 45% are devoted to basic services and housing. Over half of USDA rural development programme funds (55%) are in the form of direct loans represent; around 34% are loan guarantees; and about 11% are granted in the form of grants.

Overcoming perceived market failure in rural financial markets is another long-standing Federal concern and it garnered a significant share of rural development funds in the 2002 Act. The Rural Business-Cooperative Service operates several business assistance programmes that serve both non-farm businesses and producer co-operatives. These initiatives aim to provide credit for businesses that are unable to secure traditional bank loans and to fund community organisations that provide business assistance to micro-enterprises and rural businesses. Two programmes specifically targeted to agricultural business are the Value-Added Agricultural Product Market Development and the Renewable Energy Program, which provide guaranteed loans and grants for value-added agricultural and farm-based renewable energy projects (USD 23 million and USD 8 million in FY2007, respectively).

Direct assistance services are provided either directly by USDA or through USDA funding to third-party organisations, such as universities, that offer the services to the ultimate recipient. Assistance may range from services given to individual recipients (including farmers), to services available to rural areas or the general public in educational settings. In some cases, direct assistance may take the form of cost-share arrangements, where USDA provides funds only if the private sector or State government provides additional funds.

Most USDA rural development programmes are targeted to geographical areas, as they have eligibility requirements defined by recipient location, or the location of services provided by recipients. In addition, many programmes either restrict eligibility to lower-income individuals, or give preference to low-income areas when awarding grants or loans.

A review of programme performance identified several concerns regarding USDA programmes, including: the importance of improving information on the economic impacts of specific programmes; strengthening underwriting standards to reduce default rates on business and industry loans; ensuring the broadband loans are focused on rural areas that would lack adequate service in the absence of programme assistance; maintaining housing rental units and ensuring rental assistance is not excessive; and ensuring programmes are not duplicative.

Table 3.1. USDA rural development programmes, 2007

(USD million)

	Direct loans	Guaranteed loans	Grants	TOTAL
Rural Utilities Service	5 647	28	517	6 192
Electric programmes	3 890			3 890
Water and waste disposal programmes	1 097	28	455	1 580
Telecommunication programmes	377			377
Broadband programmes	251		10	261
Rural Housing Service	1 633	3 659	769	6 061
Single-family housing	1 129	3 341		4 470
Multi-family housing	99	90		189
Community facility programmes	33	228	48	309
Farm labour housing programme	34		17	51
Rural Business – Cooperative Service	60	891	135	1 086
Business and industry guaranteed loans		834		834
Rural economic development	26		10	36
Renewable energy		57	19	76
Value-added agricultural market development			23	23
EZ/EC*, National Sheep Industry Improvement Center			12	12
TOTAL	7 340	4 578	1 421	13 339

* Empowerment Zone ; EC = Enterprise Community.

Source: USDA (2008) FY2009, Budget Summary and Performance.

Chapter 4. Evaluation Approaches used by Countries

4.1 Australia's Signposts approach

i) What led up to the development of Signposts?

The “Signposts for Australian Agriculture” (*Signposts*) is a project which was developed in response to a commission by the Department of Agriculture, Fisheries and Forestry (DAFF) to the National Land and Water Resources Audit in 2004 to explore means of reporting on the contributions made by Australia's primary industries to national, regional and local communities. More specifically, this approach was set up to tease out the role of agriculture in natural resource management, economic growth and community life.

Signposts provides a consistent national framework for gathering information analysing agriculture's contribution to ecologically sustainable development in Australia (ABARE, 2005; Chesson and Whitworth 2005, Chesson *et al.*, 2005; the Audit). Its aim is to provide access to social, economic and environmental data specific to a particular agricultural sector and geographical area to inform policy development, strategic decision-making and future research priorities. It also aims to assist in the evaluation of the impact of proposed and actual policies so as to identify priorities for better targeting government policy, programme and R&D investments.

Although *Signposts* has been designed to complement other relevant frameworks, such as the National Natural Resource Management Monitoring and Evaluation (M&E) Framework (see Box 4.1), it is distinguished from other frameworks by: i) the nature of its subject – as its focus is on a specific agricultural sector rather than on a programme/geographical area/particular resource; ii) its scope – economic, social and environmental; and iii) the performance question it asks – “How does an agricultural industry contribute to ecologically sustainable development?” *Signposts* makes an explicit distinction between assets held by the sector concerned and assets held by other sectors. In fact, *Signposts* uses an extended version of the pressure-state-response model.

Over time, the framework has evolved in response to feedback from stakeholders. In *Stage 1*, the Bureau of Rural Sciences (BRS), in consultation with six research and development corporations, developed a pilot framework and associated outcome statements and indicators (Chesson *et al.*, 2005). *Stage 2* involved the review and refinement of the preliminary framework. The results of the initial pilot were used to expand the framework to incorporate intermediate outcomes: they provided a review of the economic and social components of the *Signposts* framework and suggested recommendations on alternative outcome statements and associated indicators for inclusion.

Stage 3 involved the on-going development of the framework and an initial assessment of the grains, beef, dairy and horticulture industries (Chesson, Whitworth and Carlisle, 2007). *Stage 4* involved the continuing development of the framework and assessment of six industries: grains, beef, dairy, horticulture, wine and cotton (Chesson, Whitworth, Norton and Carlisle, 2007). *Stage 5* entailed a feasibility assessment of extending the framework beyond the primary production sector. A report by

the BRS assessing the environmental performance of the food value chain was prepared, in response to a decision by the National Food Industry Council that the Australian Government and industry should develop consistent environmental reporting guidelines for the agri-food sector. This resulted in the development of a framework and guidelines for environmental reporting along food value chains, using pilot studies of the confectionery industry and the bread sector of the baking industry (Chesson, Morgan and Whitworth, 2006).

Box 4.1. National Natural Resource Management Monitoring and Evaluation Framework

The National Natural Resource Management Monitoring and Evaluation Framework (hereafter referred to as the "National M&E Framework") was endorsed by the Natural Resource Management Ministerial Council in 2002. It was developed to assess progress made in improving the condition of natural resources through the development of accurate, cost-effective and timely information on:

- The health of Australia's land, water, vegetation and biological resources; and
- The performance of government programmes, strategies and policies that provide national approaches to the conservation, sustainable use and management of these resources.

Assessment of information collated under the National M&E Framework is used by the Ministerial Council to "identify areas of concern and to better target the use of resources". The Framework identifies three key requirements for monitoring the condition of natural resources:

- A set of natural resource condition indicators to measure progress towards agreed national outcomes on a medium- and long-term basis;
- A set of indicators for monitoring community and social processes relevant to, or affected by, NRM programmes, as well as measures of the adoption of sustainable development and production techniques;
- Consideration of the contextual data pertinent to the indicator being considered.

The Audit is responsible for the on-going development of these indicators, as well as supporting the national collection and collation of data, and reporting against each indicator. The reporting is intended to help answer questions such as:

- What is the existing nature of the issue?
- Is the existing or proposed intervention appropriate for the size of the issue?
- What types of intervention work best, are most cost-effective, and have the best transferability across regions?
- What was the impact of the policy or programme investment – in both the intermediate and long term?

Monitoring and evaluation of core indicators supports evidence-based decision making at national, State/territory and regional levels. However, each level may have a wide variety of data and information needs, in terms of content, context or scale. There is also complexity across the three levels of use associated with multiple needs.

ii) What are the underpinning principles of the Signposts framework?

The initial scope of the *Signposts* framework focused on the primary production sector. The scope was specified as all social, economic and environmental contributions, positive and negative, short- and long-term at the farm, local, regional and national scale. The direct economic impacts include the effects on rural communities of employment, social capital and environmental effects (which are defined

through emissions into air and water that may extend far beyond the farm-gate). The direct effects do not include the additional effects on rural communities provided by the existence of a flour mill or a flour mill's emissions into air or water, as these are included in the down chain effects.

The impacts of the sector to ecologically sustainable development are measured in terms of the change in the value of the asset even though some of those changes may be due to external factors beyond the sector's control. For example, agricultural sectors are held accountable for the condition of the land they manage despite the impact of favourable or unfavourable weather, or the actions of their neighbours.

The distinction between assets held by the sector and the impact of that sector on assets held by other sectors is particularly useful in so far as it provides a direct link between frameworks such as *Signposts* that are concerned with the achievement of sustainable development, and frameworks such as the National M&E Framework that focus on asset condition (see Box 4.1).

Signposts can accommodate regionally-specific targets and indicators and it can be used to report on the contribution of agricultural industries to regional National M&E Framework targets. Three examples are provided from the grains industry profile: the effects of the grains industry on soil acidity; the effects of the grains industry on biodiversity conservation; and the effects of the grains industry on nitrogen in surface water.

Where the assets of an industry correspond to the assets of a region, *Signposts* can report directly on the achievement of NRM targets for those assets. Where an industry has an impact on regional assets that do not "belong" to the industry (e.g. water quality), *Signposts* provides a measure of the contribution that the industry makes to that asset.

Signposts is using existing datasets held by the Audit, DAFF, ABARE, BRS, ABS (Census of Population and Housing, Agricultural Census, Natural Resource Management on Australian Farms surveys), States and territories, RDCs, the Department of the Environment, Water, Heritage and the Arts and other relevant sources. It also includes information on indicators from the National M&E Framework.

Signposts reports on the economic, social and environmental contributions of agricultural industries. These contributions reflect the combined impacts of all policies and programmes initiated by government and others. Policy interventions within the Australian Government are formally evaluated during their lifetime for performance by delivering agencies with the assistance of stakeholders. The independent Australian National Audit Office also undertakes performance audits and evaluations of policy interventions and programme delivery.

4.2 Australia's National Audit Office

The Australian National Audit Office (ANAO) assists the Auditor-General to provide an independent assessment of public sector performance and government accountability. The Auditor-General is responsible, under the *Auditor-General Act 1997*, for providing auditing services to the Parliament and public sector entities. The ANAO supports the Auditor-General, who is an independent officer of the Parliament. It provides the Parliament with an independent assessment of selected areas of public administration, and assurance about public sector financial reporting, administration, and accountability. This is achieved primarily by conducting performance and financial statement audits. The Joint Committee of Public Accounts and Audit (JCPAA) reviews all ANAO audit reports and conducts enquiries on selected audits. During 2007-08, forty-six performance audits were tabled as a result of formal requests made by the Parliament, one of which was the performance audit of the Regional Partnerships Program (RPP) (see Annex 1).

The selection of topics to be evaluated is underpinned by a risk-based methodology. Potential individual audit topics are rated against criteria such as potential benefits, risks to reputation and service delivery. The priorities of the Parliament, as determined by the JCPAA, and the views of entities and other stakeholders, are also taken into account.

Audit work undertaken may lead to the publication of Better Practice Guides (BPG) that provide guidance for other public sector entities in areas such as asset management, financial management, performance information, internet service delivery, audit committees, business continuity and contract management.

Implementation of recommendations made in audit reports is not mandatory and agencies will therefore consider each recommendation on its merits. After each performance audit report is tabled, feedback on the audit process is sought independently from the senior executive responsible for the audited programme by means of a survey and an interview with the responsible manager. The completion of the survey is performed by a firm of consultants engaged by the ANAO, but independent of the performance audit teams.

During 2007–08, a wide range of performance audits were produced which focussed on improvements to public administration. These audits have not only had a direct impact on the specific area under review, but have also provided opportunities for improvements for the broader public sector. For example, the performance audit of the *Regional Partnerships Program* included recommendations aimed at achieving more effective and accountable governance arrangements for discretionary grants programmes that involve ministers making key decisions about projects receiving public funding (see Annex 1).

The ANAO uses an outcome-output framework for measuring and reporting on performance (ANAO, 2008a). General government agencies are required to plan, budget and report under this framework. Such agencies produce outputs (departmental items) and also administer items on behalf of the government. Both quantitative and qualitative indicators are specified for each outcome in order to assess performance.

Core elements of ANAO's approach are that: it uses key performance indicators covering each of its key output areas using a balanced scorecard approach; benchmarks its audit and support functions against appropriate public and private sector organisations; sets performance targets and indicators with the emphasis on achieving identified outcomes; maintains a quality assurance programme for audit products and services; and reports on its performance, including details of performance indicators and targets, in its annual report.

Table 4.1 displays the outcome-output framework for the ANAO. Two outcomes and three output groups are distinguished. Outcome 1, *improvement in public administration*, refers to independent assessment of the performance of selected Commonwealth public sector activities, including the scope for improving efficiency and administrative effectiveness. This outcome is measured through achievement of performance objectives and survey results designed to provide an overall picture of the contribution that ANAO makes to the Parliament and public sector entities.

Outcome 2, *assurance*, entails independent assurance of Commonwealth public sector financial reporting, administration, control and accountability. The main activity that contributes to this outcome is the performance of annual financial statement audits of various Australian Government entities. The ANAO makes recommendations for improvements in financial administration.

The three output groups are: performance audit services; information support services; and assurance audit services. These three output groups contribute in varying degrees to the achievement of the two outcomes. The performance indicators that relate to the three output groups are quantitative in nature and are essentially concerned with issues of efficiency, productivity and timeliness in delivering audit products.

Table 4.1. Outcome-output framework for the ANAO

Outcomes	Description	Output groups
1. Improvement in public administration	Independent assessment of the performance of selected Commonwealth public-sector activities, including the scope for improving efficiency and administrative effectiveness.	<p>Output Group 1 - Performance audit services</p> <p>Output 1.1 Performance audit reports Output 1.2 Other audit and related products</p> <p>Output Group 2 - Information support services</p> <p>Output 2.1 Assistance to the Parliament Output 2.2 National and international representation Output 2.3 Client seminars Output 2.4 Better practice guides</p>
2. Assurance	Independent assurance of Commonwealth public sector financial reporting, administration, control and accountability.	<p>Output Group 3 - Assurance audit services</p> <p>Output 3.1 Financial statement audit reports Output 3.2 Other assurance reports</p>

4.3 Canada's Results-based Management and Accountability Framework (RMAF)

What is the RMAF?

The RMAF, first introduced in 2000, is a management tool which provides a blueprint or road map to help managers in planning, monitoring, evaluating and reporting on results throughout the life cycle of a policy, programme or initiative (TBS, 2005). It provides a wide-ranging framework that refines the definition of strategic outcomes; tracks progress and the results achieved; documents actual expenditures; identifies the roles and responsibilities for the main partners involved; demonstrates accountability and transparency; and ensures availability of information in a timely manner.

RMAFs are used by federal government departments in establishing performance indicators and methodologies and for monitoring programmes on a continuous basis and measuring their effectiveness. The renewed importance the Government is now placing on good management which encompasses planning and performance assessment, and on-going review on public expenditure, coupled with Parliamentary pressure to increase transparency in the use of public funds, the RMAF remains a critical planning and management tool, supplying a concise overview of the rationale, design, delivery, programme risks and expected outcomes to all levels of management.

Departments are required to prepare RMAFs at the earliest stages of a policy, programme or initiative – ideally, at the time when decisions are being made about design and delivery approaches. Accountability for the quality and comprehensiveness of an RMAF rests within the individual departments, but the determination of the particular type of RMAF to be used is reached in full consultation with the Treasury Board Secretariat (TBS) and in compliance with Treasury Board's *Policy on Transfer Payments* (TBS, 2006).

The RMAF approach can be tailored to individual departments and to specific programmes and services. Guidance to help managers tailor the development of the RMAF to specific circumstances, taking into account such factors as overall risk, the complexity of a programme and reporting requirements, is provided by the TBS. This guidance is updated and revised as necessary, in compliance with the requirements set out in the Treasury Board's *Policy on Transfer Payments*. Additionally, in 2004 the guide on developing RMAFs was streamlined, based on lessons learned from the past several years (TBS, 2005).

The RMAF approach has been used by Agriculture and Agri-Food Canada to evaluate the following rural development programmes: the Canadian Rural Partnership Pilot Project Initiative (AAC, 2002); the Canadian Adaption and Rural Development (CARD) Fund (1999-2003, CARD II) (AAC, 2003) and the Prairie Grain Roads Program (AAC, 2006).

In 2006, as part of the Government of Canada's Federal Accountability Action (FAA) Plan, an Independent Blue Ribbon Panel (BRP) reviewed the administration of federal grant and contribution programmes. In response to recommendations from the BRP, a new Policy on Transfer Payments came into effect on 1 October 2008. One of the BRP's recommendations was to replace RMAFs with more simplified, flexible and focused documents. The main aim of the new Policy on Transfer Payments is to reduce the administrative and reporting burden required for planning documents, such as RMAFs. However, it should be noted that the main components of the RMAF will be maintained. RMAF documents will still provide information on programme performance, monitoring and evaluation. Furthermore, implementation of the Policy's new requirements will be gradual. The new Policy will apply to all new and renewed programmes approved after 31 March 2010, providing sufficient time for departments to build the capacity needed to meet these revised specific policy requirements. Therefore, the information provided in this report will remain the most up-to-date until publication of a formalised guide for the new Policy on Transfer Payments.

The three main components of an RMAF

Overtime, the RMAF has been streamlined and it is now comprised of three core components: programme profile; expected results; and monitoring and evaluation. The *programme profile* component provides a concise description of why it has been considered necessary to create a particular programme, policy or initiative; what issues or problems it addresses; who are the key stakeholders and beneficiaries; what it is intended to achieve; and the resource requirements.

The *expected results* component, which is the focal point of the RMAF, provides a description and graphical illustration (*i.e.* logic model) of the way in which the activities of a programme/policy/initiative can be expected to lead to the required economic, social and/or environmental change; describes the associated accountabilities (such as identification of the roles and responsibilities of the department and its partners, or specification of performance targets on any operating constraints which either of the department or its partners which could impact on the department's ability to deliver the programme); and presents the critical assumptions on which the programme/policy/initiative is based.

The *monitoring and evaluation* component is a detailed road map for on-going performance measurement and evaluation activities designed to support effective programme management and

accountability. The evaluation findings provide the basis for a thorough assessment of the relevance, success and cost-effectiveness of a policy/programme/initiative, as well as supplying a source of information and lessons learned to help guide managers in the decision-making process.

This component consists of a performance measurement plan and an evaluation plan. The performance (or monitoring) measurement plan permits managers to establish the necessary systems and processes to collect and analyse data and information so that programme performance can be optimised. Managers are also enabled to report on the level of attainment of planned results at any time throughout the programme's life-cycle. The monitoring and evaluation component outlines the overall performance measurement strategy, including four-to-five key performance issues, and provides a rationale as to why this particular strategy has been proposed. For each key performance issue, it identifies the associated indicators/ measures and performance targets. Key elements include the following outputs: immediate and longer-term outcomes attributable to the policy/programme/initiative; performance indicators; and chosen methodologies and data sources that accurately report on outputs produced and outcomes achieved. The performance measurement strategy outlines what current systems (*i.e.* information systems, as well as operational systems) are in place to support monitoring, and how, when and by whom performance will be reviewed and any necessary adjustments made.

The evaluation plan outlines the overall evaluation strategy and provides a rationale as to why a particular strategy is recommended. It identifies a set of issues and questions that are linked appropriately to specific performance indicators and methodologies in order to effectively capture the attained results of a policy/programme/initiative. The time horizon for formative and summative evaluations is also identified, along with any resources allocated for major evaluation work. The plan presents an evaluation framework including: data sources, proposed methodologies, frequency of analysis and responsibilities for data collection. The evaluation framework is subject to review and updating as, following the evolution of a programme, taking into account such factors as changing circumstances, programme changes and lessons learned. Annex Table 1 provides a sample of the evaluation framework template.

Although the Treasury Board's *Evaluation Policy* encourages the development of an RMAF for all policies, programmes and initiatives, it is only mandatory for certain categories of programmes involving transfer payments. For example, RMAF requirements do not strictly apply to grants that specify the recipient, or to endowment funds. When an RMAF is required it must be presented to the TBS for review and approval, as part of a related Treasury Board Submission.

In accordance with new guidance provided in 2005, the level of detail and scope of an RMAF is aligned with the level of risk and complexity of the programme/policy/initiative, as determined by the department. For example, a "low-risk" programme should have a simple logic model and straightforward monitoring and evaluation activities. Low-risk programmes might include programmes with a low budget (*i.e.* annual expenditure of CND 2 million or less); few delivery partners, demonstrated reporting capacity, or low potential for public controversy. On the other hand, a more complex, "high-risk" programme should provide additional information to clearly explain relationships, accountabilities, risks and challenges in performance measurement.

Where broad policies and large-scale initiatives with comparable or common objectives (*e.g.* multi-disciplinary initiatives, cross-departmental programmes and partnerships) and which lend themselves to a common framework for performance measurement and reporting purposes, the RMAF could be articulated at a more strategic level (*i.e.* an "umbrella" RMAF) (TBS, 2002a). In any case involving an umbrella RMAF, the department concerned could still be required to develop RMAFs to closely monitor programmes/policies/initiatives involving a higher level of risk (*e.g.* government priorities; programmes with a higher public profile, or inter-jurisdictional initiatives). The appropriate strategic approach to an RMAF is determined in consultations between departments and the TBS. The TBS

provides guidance on the strategy for developing the RMAF and makes the final decision on the type of RMAF to be used.

4.4 *Canada's Rural Lens approach*

In Canada, there is no specific policy or programme evaluation process that explicitly evaluates the impact of agricultural policies on rural areas. However, with the implementation of the Canadian Rural Partnership a new approach was launched that provides a framework for assessing the impact of Canadian policies on rural development (Matheson, 2006). It is notable that there are similarities between this and the United Kingdom's Rural Proofing approach.

The main tool available to the Federal government is a checklist of "Rural Lens" considerations (Government of Canada, 2005). The "Rural Lens" raises awareness of rural and remote issues across federal government organisations, by asking them to assess the effect of new policies, programmes and services on Canadians living in rural and remote areas. This tool was developed through consultations between the federal government and citizens in rural and remote areas (Rural Dialogue). It helps to analyse the effects that new federal government services, policies and programmes will have on rural Canada. The Rural Lens is used at two points in time and by two different clusters of users in the policy-making process:

- In the earliest stages of policy and programme development it is used by policy and programme analysts from individual departments and agencies to identify and take into account the potential effects of new policies and programmes on rural communities prior to advancing proposals to the decision-making level;
- It is used when the proposals have been fully fleshed-out and submitted to Ministers for decision. It is also used by policy staff to develop briefing materials for Ministers.

A "Rural Lens" with a checklist of considerations is a list of questions that should be raised every time a department is going to implement a new programme or policy. The checklist of considerations is as follows:

- How is this initiative relevant to rural and remote Canada?
- Is the impact specific to a selected rural or remote environment or region?
- Have the most likely positive and negative effects on rural Canadians been identified and, where relevant, addressed?
- Is the initiative designed to respond to the priorities identified by rural Canadians?
- Have rural Canadians been consulted during the development or modification of the initiative?
- How is the benefit to rural Canadians maximised? (*e.g.* co-operation with other partners, development of local solutions for local challenges, flexibility for decision making)?

In addition to asking these questions, the "Rural Lens" unit conveys to federal policy and programme practitioners information concerning rural Canadian priorities and challenges, including initiatives for delivering, communicating, and measuring and evaluating rural impacts.

The following areas have been identified as priority areas for rural Canada:

- Access to federal government programmes and services;

- Access to financial resources for rural business and community development;
- More targeted opportunities, programmes and services for rural and Aboriginal youth;
- Rural community capacity-building, leadership and skills development;
- Infrastructure for community development;
- Skills and technology to participate in the knowledge-based economy;
- Economic diversification in rural Canada through more targeted assistance;
- Access to health care and education at reasonable cost;
- Strategic partnerships to facilitate rural community development; and
- Promotion of Rural Canada as a place to live, work and raise a family.

Issues to consider for delivering initiatives include:

- Identifying the factors that affect the delivery of the programme, policy or service (*e.g.* geographical distances, limited access to government offices and to the Internet).
- Determining the appropriate delivery vehicles, which accommodate rural considerations.
- Partnership with organisations (*e.g.* other federal departments/agencies and/or other levels of government, private sector, non-governmental organisations) to maximise benefits.
- Considering using community-based organisations to deliver the programme or service to meet unique local challenges.
- Addressing concerns regarding roles and responsibilities of differing government levels.

Issues to consider for communicating initiatives are:

- Testing communications products and messages with both rural and urban Canadians.
- Identifying the communication vehicles appropriate for rural Canada (*e.g.* community local newspapers, radio, posters at government offices, local TV).
- Advertising new programmes and services through the 1 800 O-Canada toll-free line, the Canada site and the Rural Web Site.
- Including key messages that address the concerns of Canadians living in rural and remote communities.
- Referring to the Canadian Rural Partnership and the Government of Canada's commitment to rural and remote Canada where appropriate.

Issues for measuring and evaluating rural impacts comprise:

- Determining how the initiative will be assessed for rural implications during its design, development and implementation.
- Determining how the initiative will improve the quality of life for rural Canadians (*e.g.* health, education, economic and community benefits).

- Identifying the phases (e.g. pilot, post-implementation evaluation) where rural considerations will be reviewed to determine if changes are needed to accommodate rural needs.
- Including rural considerations during periodic reviews of the initiative.
- Modifying new initiatives to accommodate rural issues, where appropriate.

Precise performance measurement indicators to evaluate outputs and outcomes are to be established by the Canadian Rural Partnership, as part of its current renewal process.

4.5 The EU's approach to evaluating Pillar II measures

In the EU, a formal system of evaluation is in place. EU member states are obliged by EU legislation to assess the performance of their Rural Development Programmes (RDP). The EU Rural Development Regulations of 1999 and 2005 require that each RDP undergoes *ex ante*, mid-term and *ex post* evaluations according to a specified timetable. In addition, the European Court of Auditors (ECA) periodically undertakes evaluations of particular programmes (ECA, 2008; 2006; 2005; 2003).⁶

In the 2000-2006 period, evaluation of Rural Development programmes was organised as a four-step process comprising *ex-ante* evaluation (in 2000), mid-term evaluation (in 2003), mid-term evaluation update (in 2005; non-compulsory for EAGGF-Guarantee funded programmes) and *ex-post* evaluation (in 2008). These evaluations were all carried out at programme level and were the responsibility of member states, while the Commission produces syntheses of the mid-term and the *ex-post* evaluations. The process was guided by a set of Guidance documents developed by the Commission in co-operation with member states. The guidelines set out a catalogue of some 40 common evaluation questions to be treated by all reports, based on some 150 related evaluation indicators. Box 4.2 presents the key conclusions drawn from the evaluations of the 2000-06 period.

In preparation for the implementation of the new rural development policy post-2006, the European Commission carried out an extended impact assessment in 2004 (CEC, 2004). The objectives of this study were to gather information on rural development policy as financed by the EAGGF, to analyse it, and to draw conclusions on the relevance, coherence, effectiveness, and efficiency of the different measures and programmes. A sample of 30 mid-term evaluation reports was chosen to make this assessment, which also included an analysis of the Community system for the evaluation of the RD programmes, with a view to obtaining useful hints for its revision within the preparation of the 2007-13 programming. Whilst most of the evaluation's conclusions were germane only to the specific policy under review, some more general insights are highly relevant, and, in the context of this discussion, familiar. For instance, "In general terms, evaluations tend to be more positive in identifying positive impacts at the micro than at the macro level ... while many evaluations demonstrate that RD measures have created jobs or helped to prevent depopulation, none are able to demonstrate that these effects have been significant enough to influence overall levels of rural population or employment". The questions used in the mid-term evaluation are displayed in Annex 2. Annex 4 presents an application of the evaluation framework for the Less-favoured Areas (LFA) scheme and Annex 5 for the Nordic Aid Scheme in northern Finland and Sweden over the period 1995-2005.

6. For example, the ECA audited rural development investments (ECA, 2006); agri-environmental programmes (ECA, 2005); and support to less-favoured areas (ECA, 2003).

Box 4.2. Key conclusions from rural development evaluations in the EU, 2000-06

Relating to the policy/strategy and programme approach

- Better co-ordination between RDPs and other European or national support schemes can create synergies and enhance the effectiveness of different schemes.
- The viability of rural areas can best be maintained and enhanced through the strengthening of effective partnership in territorial based regional and/or local development strategies.
- The large number of available measures with different objectives makes difficult to ensure the internal coherence of the programmes. A realistic, precise definition and quantification of programme objectives, a careful selection of measures, and a precise targeting of beneficiaries are a pre-condition for successful programmes.

Relating to the delivery mechanism/ implementation

- Networking and exchange of good practice, both nationally and cross-border, clearly increase the effectiveness of programmes.
- Funding provisions and delivery mechanisms should be simplified, and a set of common rules for the funding, monitoring and evaluation of all rural development measures should be ensured.
- Clearer guidance for monitoring and evaluation requirements is needed already at the programming stage. The monitoring and evaluation systems should be better adapted to each other.
- *Ex-ante* evaluations were carried out too late to lay the basis for programming, and baselines and target levels were not well identified.
- Mid-term evaluations at member states level (to be submitted in 2003) were produced too early to provide robust judgement on impacts of measures and programmes and too late to be used as input for post-2006 Rural Development Regulation.
- The added value of *ex-post* evaluation for each programme (to be submitted by end-2008) at member state level is not evident.
- Guidelines, although considered as very useful, were criticised for being too inflexible, containing too many indicators (around 150) and often being presented too late, when programme preparation was already well advanced.

Relating to individual measures

- Farm investment: Effective (increased income for farmers) mostly if well-targeted towards specific needs, *e.g.* towards modernisation of less-competitive farms; however, deadweight effect can appear where “traditional” investments for increased productivity are made on already highly productive farms.
- Less-favoured Areas (LFAs): a “significant” proportion of LFA receives compensation to ensure continued agricultural land-use, protecting the environment and maintaining viable rural communities. However, as regards the delimitation of LFAs, a more clear and transparent approach, based on well defined criteria, would help to improve the effectiveness of the scheme.
- Processing and Marketing: Benefits of the scheme for primary producers are doubtful; there are some positive effects of investments on hygiene and animal welfare and on employees’ health and safety. For investments regarding restructuring better targeting is needed.
- Agri-environmental measures: clear positive effects regarding soil and water quality; equally on habitat protection, biodiversity and landscape protection, although it is not always possible to quantify environmental benefits.
- Young farmers: Scheme is only partly relevant for encouraging the setting-up of young farmers; better targeting and combination with other measures is needed.
- Early Retirement: In some member states this is very relevant for earlier transfer of holdings and subsequent improvement of economic viability of holdings.

Source: CEC (2004).

The process of policy evaluation in the EU has received considerable attention over recent years, and has produced an extensive literature on guidance for the evaluator, both in general terms and for the assessment of specific programmes (CEC, 1999 and 2006; Blandford and Hill, 2008).⁷ Despite some inherent weaknesses in tracing the chain of causality from actions to impacts, Baslé (2006) still considers that the EU's Structural Funds' "evaluation process is arguably one of the best-managed in the Commission".

In the programming period 2007-13, monitoring and evaluation has been reinforced and the approach has been streamlined. Evaluations will assess the impact of the programmes both as regards the strategic guidelines of the EU and the rural development problems specific to the programming areas concerned. The new Rural Development Regulation (RDR), Council Reg. (EC) 1698/2005, sets out a timetable for the submission of the various stages for design, approval and evaluation of programmes. Briefly, with respect to the 2000-06 programming period, the main new elements of the evaluation system for the 2007-13 programming period include:

- A more strategic approach concerning the definition of rural development programmes;
- A common framework for the monitoring and evaluation of all measures funded through the European Agricultural Fund for Rural Development;
- The establishment of an "ongoing evaluation system" in order to: i) better linking monitoring activities with evaluation needs in terms of data collection; ii) establishing and quantifying baseline indicators and target levels in a timely manner; and regularly assessing the progress of the programmes in achieving quantified goals against baselines; and
- Setting up of a European Evaluation Network to help establishing good practice and capacity building in the evaluation of Rural Development Programmes.

Member states must provide a National Strategy Plan describing the overall socio-economic and environmental situation of rural areas and objectives for rural development, according to guidelines provided by the European Commission. A detailed SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis should then be carried out at the implementation level. While member states can set priorities at national or regional level, they are also required to take into account the overarching EU objectives outlined in the EU strategic guidelines and to ensure a balance between the four thematic axes of rural development (e.g. improving competitiveness of farming and forestry; environment and land management; improving quality of life and diversification of rural areas; and mainstreaming the LEADER approach).

The Common Monitoring and Evaluation Framework (CMEF), which builds on the experience from the 2000-06 programming period and takes into account the new requirements of the new RDR, consists of a list of common indicators relating to the baseline situation, financial execution, output, results and impacts of the programmes. Guidance on choice and use of those common indicators, including examples of additional programme-specific indicators, on ongoing evaluation, as well as the common evaluation questions are defined in the "Handbook of the Common Monitoring and Evaluation Framework" (CEC, 2006).

In general, the CMEF introduces few additional data collection requirements compared to the previous programming period, except where the scope of a measure or an objective has been changed. However, when the common indicators do not adequately capture all effects of programme activities, in particular those related to national priorities and site-specific measures, scope is provided for additional,

7. See, for example, the European Commission's *MEANS* volumes (CEC, 1999) and the guidelines established for evaluation of its current Rural Development Programme (CEC, 2006).

programme-specific indicators. Nevertheless, such indicators should be developed in accordance with the general principles governing the use of common indicators.

Member states are obliged to establish a system of ongoing evaluation for each RDP programme. Ongoing evaluation is a dynamic process that covers all the evaluation activities that should be carried out by member states over the entire programming period. This includes *ex-ante*, mid-term and *ex-post* evaluation, as well as any other evaluation-related activity (e.g. compilation and refinement of indicators, data collection methods). Capacity building and best practice exchanges are also considered important aspects of ongoing evaluation systems. Generally speaking, it consists of three main elements, which are closely interlinked: i) continuous evaluation activities at programme level with annual reporting; ii) accompanying thematic studies to be carried out at the initiative of the European Commission and iii) an evaluation expert network to help with capacity-building and provide a platform for methodological exchange.

Ex ante evaluation sets the basis for establishing a system of evaluation by identifying objectives, target levels and baselines for the programmes. In particular, it should identify and appraise medium- and long-term needs; the goals to be achieved; the results expected; the quantified targets (particularly in terms of impacts in relation to the baseline situation); the Community added value; the extent to which the Union's priorities have been taken into account; lessons drawn from previous programming; and the quality of the procedures for implementation, monitoring, evaluation and financial management. The *ex ante* evaluation is carried out under the responsibility of the member state concerned. In 2008, the EC carried out a synthesis of the 94 *ex ante* evaluations established at programme level for all rural development programmes co-financed by the EAFRD in the 27 member states.

A summary of the on-going evaluation activities will be included in the annual progress report. In 2010, ongoing evaluation will be in the form of a separate mid-term evaluation report, while in 2015 it will be in the form of a separate *ex-post* evaluation report. Also, in 2010 and each year thereafter, each member state will be required to submit to the European Commission a summary progress report implementing its national strategy plan and objectives, and strategic guidelines. A summary of the mid-term and *ex post* evaluation reports prepared by the member states will be made, under the responsibility of the European Commission. The latter has to be completed by end-2016. The aforementioned mid-term evaluation of each programme will be conducted by independent evaluators to assess achievements in the first half and the need for any major programme adjustments for the second half of the programming period.

The standard general evaluation approach aims to examine the direct (or static) impacts (*i.e.* short-term, immediate effects) and indirect (or dynamic) impacts (*i.e.* medium- or long-term effects) of the policy in question and to assess whether the EU objectives continue to be relevant and are being achieved in the most effective and efficient way. A key tool for evaluation is the so-called *intervention logic*. This generic model establishes the causal chain from the budgetary input, *via* output and the results of measures, to their impact.

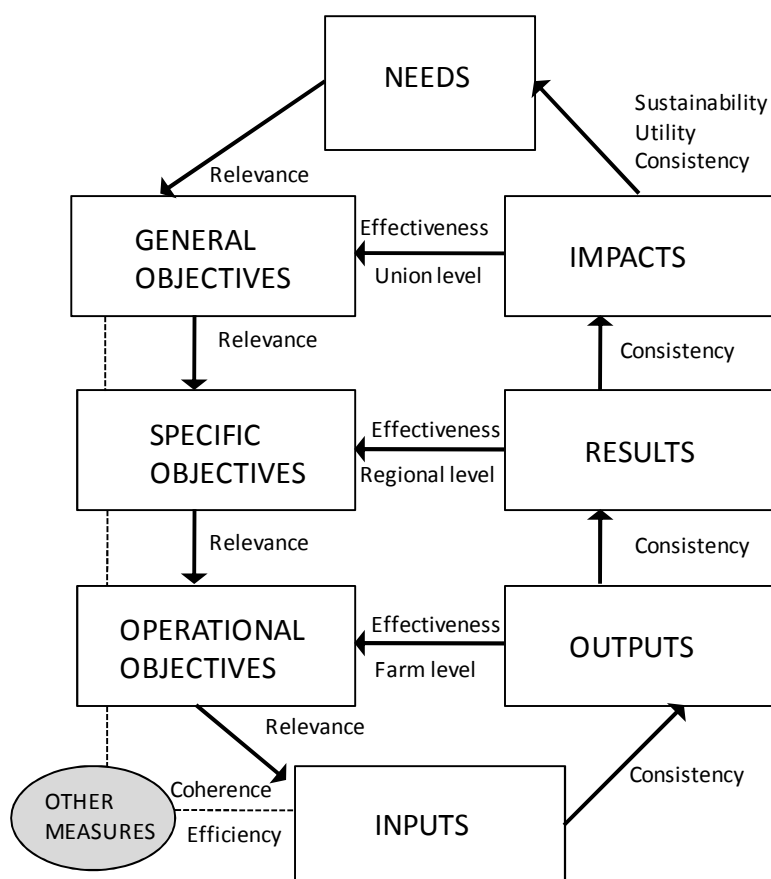
More specifically, the process starts from the *needs* that have been identified. Based on these needs, a set of *general objectives* to be achieved by the policy are specified. Next, the general objectives are further refined into *specific objectives* to be achieved by specific measures contained in the policy. These may be thought of as affecting individual decision makers (persons, households, firms, etc.) who operate within the sector or region targeted by the policy. Finally, the specific objectives are used to construct a set of *operational objectives* to guide the administrators who implement the intervention policy. That is to say, the operational objectives determine the rules of implementation needed to fulfil the specific and general objectives. The *inputs* constitute the means by which the objectives are to be obtained (*i.e.* the various measures contained in the intervention policy and the rules governing their application). Along this continuum the emphasis shifts from the EU level to the farm level.

The means of implementation, the administration and the financial resources are reflected in the *outputs*. The outputs generate the *results* of the policy scheme, with quantifiable changes in the indicators expected to contribute to the achievement of the specific objectives. The results, in turn, shape the *impacts* of the scheme, contributing to the achievement of the general objectives. These impacts are expected to satisfy the needs of society. Also along this continuum the emphasis shifts from the farm level to the EU level.

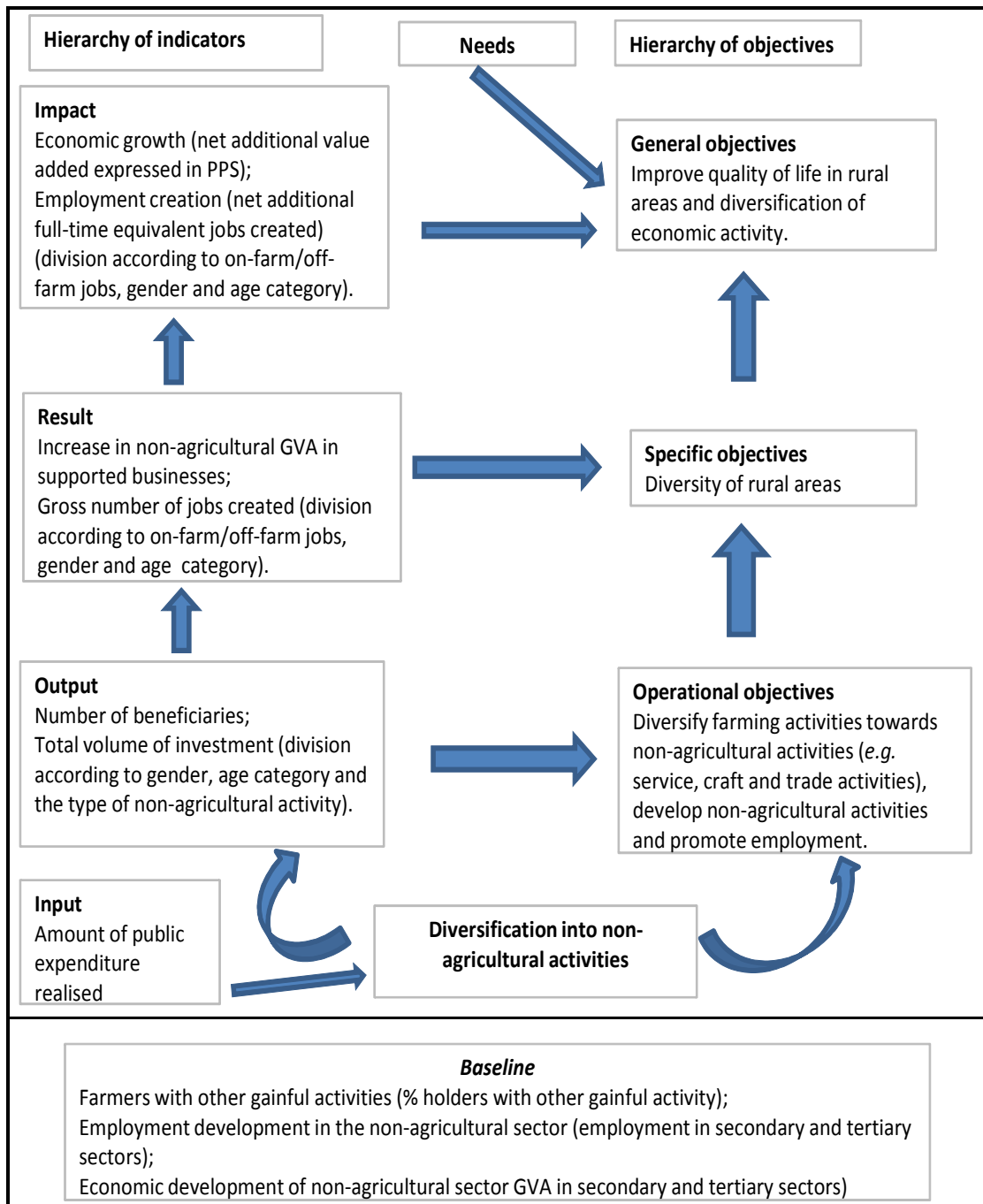
At each level, the policy measures are evaluated in terms of their *effectiveness* (i.e. the extent to which a specific objective is met) and *efficiency* (i.e. whether or not the policy measure is the best possible way to obtain the objective). Hence, the “hierarchy of objectives” is matched by a corresponding “hierarchy of indicators”. For the operational objectives, indicators – termed *output indicators* – are defined. Similarly, for the specific objectives, indicators – termed *result indicators* – are defined. Finally, the general objectives should be evaluated against indicators desired to assess structural change – termed *impact indicators*.

The generic model (“intervention logic”) is illustrated in Figure 4.1. An example, of the correspondence between “hierarchy of objectives” and “hierarchy of indicators” is given in Table 4.2 for the diversification into non-agricultural activities measure, which is part of the thematic axis on wider rural development of the 2007-13 RDP.

Figure 4.1. Generic evaluation framework in the EU



**Table 4.2. Diversification into non-agricultural activities programme:
“Intervention logic” and indicators**



In sum, while the guidelines make no prescription regarding particular evaluation methodology and, in principle, evaluators are free to use approaches which explore the complex causal structures which translate policy input into outcomes, in practice the requirements for the plethora of the evaluation questions which the guidelines prescribe are expressed in terms of predominantly quantitative measures. However, at each level the scope of indicators becomes broader and more

diffuse. For example, at result level for the diversification into non-agricultural activities measure, other factors affecting farms may contribute to gross valued added increases in non-agricultural activities; and types of business activity other than farming may contribute to the impact indicators.

4.6 Norway

In Norway, the evaluation approaches to assess the implications of agricultural policies on rural development include: i) bi-annual reports to parliament; ii) the “Results Check of Agricultural Policy” document of the Budget Committee for Agriculture, which forms the basis for the annual agricultural negotiations and preparation of the reports to parliament. Evaluations tend to be at the aggregated level; iii) *ad hoc* studies to evaluate specific rural development policy measures related to agriculture. These studies conducted either by consultants, on behalf of different government agencies, or the Office of the Auditor-General of Norway.

4.7 Switzerland

In Switzerland, the constitution requires all policies to be evaluated with regard to their effectiveness. This also applies to the new rural development policy instruments – some such studies have already been initiated. The benchmark for the evaluation in the agricultural sector is basically that of sustainability. But evaluations are not based on a formal approach and the methods used are a mixture of qualitative and quantitative approaches. The results of the evaluations are published in an annual report (the Agricultural Report of the Federal Office for Agriculture). In recent years, specific evaluations have also been carried out in the areas of direct payments, production and sales, structural improvements and agricultural research.

A new evaluation strategy was adopted in March 2008 for the period 2008 to 2011. Its main focus is the evaluation of the Swiss direct payment system, based on a corresponding mandate by the parliament which mainly asks for a review of the effectiveness of the current system. The government will submit its report in 2009. Other evaluations will be carried out in a wide range of fields such as diversification aids, investment aids for irrigation or social measures. An evaluation of all the programmes of the NRP is also foreseen.

4.8 The United States’ Program Assessment Rating Tool approach

i) Overview

The U.S. Office of Management and Budget (OMB) and Federal agencies have joint responsibility for assessing the performance of every Federal programme. Every programme’s performance is assessed through a standard questionnaire called the Program Assessment Rating Tool (PART), which is a diagnostic tool designed to provide a consistent approach to the assessment and rating of Federal programmes.

PART is an evaluation process used to measure the effectiveness of Federal programmes and to inform the management actions, budget requests and legislative proposals directed at achieving results. The PART includes a set of questions that evaluate programme performance based on: programme purpose and design; strategic planning; programme management; and programme results. Each programme receives a numerical score and a qualitative rating. The qualitative ratings include: *Effective*; *Moderately Effective*; *Adequate*; *Ineffective*; and *Results not Demonstrated*. A rating of Results not Demonstrated means that a programme does not have sufficient information to show results, and therefore it is not possible to assess whether it has achieved its goals. Key performance measures

include the number of jobs created or saved, the number of home ownership opportunities provided, and the number of rural residents served by USDA-financed facilities.⁸

Once each assessment is completed, improvement plan is developed in order to follow up and improve the programme's performance. The PART is central to the Administration's Performance Improvement Initiative (PII) and is a vehicle for achieving the goals of the Government Performance and Results Act.⁹

The PART process is initiated early in the calendar year. A website was launched in February 2006 on which all completed PARTs are available for public scrutiny (www.ExpectMore.gov). It provides a summary for each programme that has been reviewed using the PART and it includes key findings and details on what is being done to improve results. The website is aimed specifically at making performance information transparent and readily available. By increasing the transparency of the PART process, the Administration's aim is to improve accountability and programme performance every year.

ii) Programme ratings

The PART is a series of (approximately 25) questions that assess different aspects of programme performance and management (see Annex 2). Questions are generally written in a *Yes/No* format. Each question requires a detailed explanation of the answer with supporting evidence, such as agency performance information, independent evaluations, and financial information. A programme must satisfy all the requirements of a question to earn a *Yes*; compliance with the letter of the law is insufficient. *Evidence* cited in the PART is, generally, taken from the last five years. The answers to specific questions determine a programme's overall rating.

Each PART is divided into four sections:

- Programme purpose and design: to assess whether the programme's purpose and design are clear and sound;
- Strategic planning: to assess whether the programme has valid long-term and annual indicators and targets;
- Programme management: to rate a programme's management, including financial oversight and programme improvement efforts;
- Programme results and accountability: to rate programme performance on indicators and targets reviewed in the strategic planning section and through other evaluations.

8. Efforts are underway to improve these measures. For example, an evaluation model known as the Social-Economic Benefit Assessment System has been implemented to assess the job and income creation impacts at local, regional and State levels. Initially, the model will be applied to USDA's business programmes. In addition, new performance measures were developed, resulting in upgrades in the PART review for its water and waste disposal and multi-family housing programmes to ratings from "Results Not Demonstrated" to "Effective" for the water and waste disposal programme and "Moderately Effective" for the Multi-family Housing Program.

9. The PII institutionalises the policy objectives of Executive Order 13540, namely to spend taxpayer dollars effectively: www.whitehouse.gov/news/releases/2007/11/20071113-9.html. The current PII scorecard standards for success, as well as the standards for all of the other PMA Initiatives, can be seen online: www.whitehouse.gov/results/agenda/standards.pdf.

The answers to questions in each of the four sections result in a numeric score from 0 to 100, which are then weighted to generate an overall score.¹⁰ The section scores are weighted as follows: programme purpose and design: 20%; planning: 10%; management: 20%; and results and accountability: 50%. Only the overall ratings are made available to the public.

These numeric scores are tallied and translated into qualitative ratings. Programmes that are *performing* have ratings of *effective*, *moderately effective*, or *adequate*:

- *Effective*: This is the highest rating a programme can achieve (85-100%). Programmes rated as effective set ambitious goals, achieve results, are well-managed and improve efficiency.
- *Moderately effective*: In general, a programme rated moderately effective has set ambitious goals and is well-managed (70-84%). Such programmes are likely to need to improve their efficiency or address other problems in the programmes' design or management in order to achieve better results.
- *Adequate*: This rating describes a programme that needs to set more ambitious goals, achieve better results, improve accountability or strengthen its management practices (50-69%).

Programmes categorised as *not performing* have ratings of *ineffective* or *results not demonstrated*:

- *Ineffective*: These programmes have been unable to achieve results due to a lack of clarity regarding their objectives, poor management, or some other significant weakness (0-49%).
- *Results not demonstrated*: This rating indicates that a programme has not been able to develop acceptable performance goals or collect data to determine whether or not it is performing.

Up to the end of 2007, the seven years since the implementation of the PART method, 1 004 Federal programmes – or 98% of all Federal programmes – have been assessed in this way. The table below shows their rating distribution.

<i>Distribution of programme ratings</i>	
Number of programmes assessed	1 004
Effective	18%
Moderately effective	31%
Adequate	29%
Ineffective	3%
Results not demonstrated	19%

10. Sections I to III are scored in a *Yes/No* format, while in Section IV a four-level scale (*Yes*, *Large Extent*, *Small Extent*, and *No*) is used to reflect partial achievement of goals and evidence of results. *Not Applicable* may also be an appropriate answer.

iii) Determining the programme type

Although most PART questions are the same, the PART divides all programmes into seven categories for the purpose of asking additional questions unique to a particular type of programme. These categories apply to both discretionary and mandatory programmes:

1. *Direct Federal Programmes* (e.g. Counter-cyclical payments, the Dairy Price Support Program);
2. *Competitive Grant Programmes* (e.g. the Farmland Protection Program);
3. *Block and Formula Grant Programmes* (e.g. the Food Stamp Program);
4. *Regulatory-Based Programmes* (e.g. the Food Safety and Inspection Service);
5. *Capital Assets and Service Acquisition Programmes* (e.g. the Bureau of Reclamation – Water Management – Project Planning and Construction);
6. *Credit Programmes* (e.g. the Agricultural Credit Insurance Fund);
7. *Research and Development (R&D) Programmes* (e.g. the Agricultural Research Service).

iv) Selecting performance measures

Guidance is provided to help define or select meaningful performance measures for programmes. Agencies and the OMB are required to assess the quality of a programme's measures in terms of: their meaningfulness; soundness of the methodology; and if the measures can be verified with reliable data. In addition, performance measures should be simple to communicate to non-experts.

Performance measures are grouped into three categories: outcome, output, and efficiency measures. *Outcome measures* describe the products and services to be provided over a period of time as a result of carrying out a programme or activity. As outcome measures are the most informative measures about performance, guidance is given to translate existing output measures into outcome measures. For example, the output measure “number of businesses assisted through loans and training” should be expressed as “percent of businesses that remain viable three years after assistance”. A “proxy” outcome measure may be adopted in cases where a quantifiable outcome measure cannot be defined, such as occurs with programmes that focus on process-oriented activities (e.g. data collection, administrative duties or survey work).

For *efficiency measures* – accomplishing more benefits for a given amount of budgetary resources – two categories are defined: *outcome efficiency* measures and *output efficiency* measures. The outcome efficiency measures capture improvements in programme outcomes for a given level of budgetary resource use and are generally considered the best type of efficiency measure for assessing the programme overall. Output efficiency measures – how to produce a given output level with fewer resources – are more suitable when it is difficult to express efficiency measures in terms of outcomes.

Guidance is also provided for the setting of targets (*i.e.* the improved levels of performance needed to achieve stated goals). According to the guidelines, the targets must be *ambitious* (*i.e.* set at a level that promotes continued improvement given programme circumstances) and *achievable*, given programme characteristics. Each target must have a timeframe (*e.g.* specify the years in which the target level is to be achieved). Target setting should consider circumstances (*e.g.* funding levels, changing legislative constraints, past performance) and targets may be adjusted annually as these factors change. In most instances, targets should be quantifiable and verifiable. However, in some cases, like basic research and development, measures and their targets may need to be qualitative and supported by peer review (*e.g.* expert panels) or other means. When a target is not quantitative, it must still be verifiable.

The PART also distinguishes between long-term performance goals and annual performance goals. Long-term is defined as covering a multi-year period of time, at least five years from the current year.

v) *Action plans for improving performance - developing an aggressive improvement plan*

Federal agencies and the OMB are also held accountable for improving programme performance. In response to each PART assessment, they work together to identify follow-up actions, also known as an improvement plan. The type and scope of the follow-up actions in improvement plans vary greatly. The actions can include management actions the agency will take, funding proposals included in the President's Budget, and legislative proposals. In some cases, the recommended actions focus specifically on one or two key areas in need of improvement. In other cases, the follow-up actions are much broader.

All follow-up actions have to include the dates by which they will be achieved. Agency efforts to complete these actions and improve programme performance are tracked in the President's Management Agenda scorecard for Budget and Performance Integration, as well as through PART updates each year. The updated status of the improvement plans is published on the website twice a year.

Box 4.3 below shows the summary assessment of the Value-Added Producer Grants Program (VAPG) and Box 4.4 that of the Conservation Reserve Program (CRP). The detailed PART assessments of these two programmes are shown in Annex 6.

4.9 Evaluation of the potential effects of the Conservation Reserve Program (CRP) on rural communities in the United States – USDA/ERS study

In common with other agri-environmental programmes in the United States, the CRP was not created with the aim of achieving rural development objectives, yet, the programme's potential effects on the viability of rural communities have become an important policy issue as it can have unintended ramifications that can affect rural communities in a variety of ways. For example, by improving the rural landscape and fostering a cleaner environment, CRP can contribute to the quality of rural life; be of benefit to outdoor activities and recreation in many communities, and act as a significant stimulus to rural economies. Moreover, CRP rental payments, by increasing the revenue of farm households, can boost consumer demand, including recreational spending.

On the other hand, as occurs with other farmland retirement programmes, retiring productive farmland can have the effect of reducing the demand for farm inputs and agricultural marketing services. Thus, if alternative economic activities (such as hunting, fishing and other forms of outdoor recreation) do not develop in synchronisation with the withdrawal of farmland from agricultural production, rural communities with high proportions of farmland enrolled in CRP can be adversely affected. Decreased farming activity could also result in decreased demand for non-farm goods – and the consequential job losses could contribute to outmigration from such areas. Pronounced shifts in a community's economy can also affect its desirability as a place to live and work, and ultimately its population level.

This USDA/ERS study initially prepared at the request of Congress, addresses several concerns about CRP's economic, social, and land-use effects on rural counties nation-wide (Sullivan *et al.*, 2004). Of particular interest are the effects of CRP enrolment on:

- Rural employment and businesses;
- Rural population and new farmers; and
- Opportunities for recreational activities (including hunting and fishing).

Box 4.3. Programme assessment – Value-Added Producer Grants Program

Performance

Rating: *Adequate*

Score: *Purpose & design: 80%; strategic planning: 75%; management: 95%; results & accountability: 40%*

Overall, the assessment undertaken in 2006 found that the Program is well-designed, with detailed protocols. The Program has good management in place. RBCS is still in the process of developing baselines and gathering data for some measures because it is a new programme, created from the 2002 Farm Bill. Not all performance measures have data. The Program provides valuable support for emerging markets. Although there is room for improvement on how a project is selected for funding, in general, new market technologies are favoured and the target audience is reached.

Improvement plan

The actions taken to improve the performance of the Program include: i) assessing opportunities for reducing the Program burden on applicants and Rural Development staff; ii) continually re-assessing existing performance measures and evaluating potential new measures; iii) increasing targeting of the Program to emerging markets.

Source: www.whitehouse.gov/omb/expectmore/summary/10002036.2006.html.

Box 4.4. Programme assessment – Conservation Reserve Program

The CRP safeguards natural resources by paying farmers to take environmentally sensitive cropland out of production, and plant long-term resource-conserving covers (such as grasses and trees). These covers improve the quality of water and air, control soil erosion, and enhance wildlife habitat.

Performance

Rating: *Moderately effective*

Score: *Purpose & design: 100%; strategic planning: 62%; management: 57%; results & accountability: 67%*

Overall, the assessment undertaken in 2004 found that the Program has good goals and targets. It uses an Environmental Benefits Index to rank producers' applications according to estimated environmental and cost performance. The Farm Service Agency (FSA) designates both national- and state-level conservation priority areas. (USDA's Farm Service Agency administers the Program.) The FSA collects performance information on all CRP contracts, including the conservation practices installed, acreage enrolled, location of land relative to national and state priority areas, and other characteristics of the land. FSA is working to build on the contract file and collect new Geographical Information System data on all crop contracts, which will assist modelling efforts. In some cases, the Agency is not using the data to effectively manage the Program. Deficiencies exist in the FSA's technical assistance accountability system, and the FSA has made slow progress in utilising the private sector. Also, FSA does not conduct regular independent programme evaluations.

Improvement plan

The actions taken to improve the performance of the Program include: improving FSA's technical assistance accountability systems; performing independent programme evaluations to identify recommendations for improving performance and efficiency; collecting performance data and using it to improve the field-level oversight of CRP contracts.

Source: www.whitehouse.gov/omb/expectmore.

How was the study conducted?

A number of different datasets and models were employed in conducting this study. Trends in the geographic distribution of CRP land and the characteristics of farm operators participating in the CRP were analysed using CRP contract data and survey data on farm enterprises. A literature review detailed some of the known environmental and recreational impacts of the CRP, including its impacts on soil erosion, wildlife-based recreation, and water-based recreation.

The analysis focuses on two groups of counties: 1) non-metropolitan counties with at least 5% of their workforce employed on the farm, and 2) counties considered as having “high-CRP enrolment”. The classification between high- and low-CRP counties is based on two indicators: i) the proportion of each county's total cropland enrolled in the CRP; and ii) the size of an area's CRP rental payments relative to local income.

The two indicators of CRP's local importance are positively correlated, but they measure different aspects of the programme's importance. The acreage-based indicator is used to evaluate the effects of CRP on new farmers – a group that is likely to be sensitive to CRP-induced changes in land-use patterns: the payments-based indicator is used to evaluate CRP's effects on population and employment trends. This indicator combines information on the value of the land being retired and the importance of the associated farming activity to the local economy: the higher the ratio, the larger the potential effect of CRP on surrounding communities.

Two quantitative approaches were used to investigate whether CRP enrolment affected county-level employment, income and population. The first approach entails the use of single-equation econometric models to estimate the statistical importance of various factors affecting the growth of rural counties – including CRP enrolment – before and after the CRP was put in place. In particular, starting with an econometric analysis of some 1 500 counties where CRP might be expected to be important to the local economy, a matched-pair analysis was developed. This analysis compares pre- and post-CRP socio-economic trends in about 200 “high-CRP enrolment” counties with (otherwise similar) “low-CRP enrolment” counties. Special attention was given to the effects of whole- versus partial-farm enrolment; the prevalence of absentee landlords, and CRP's impact on farm-related businesses and beginning farmers. To capture both short- and long-run effects, a series of econometric models is estimated for different time periods to determine if/when local socio-economic trends were influenced by CRP enrolment.

The second approach relies on a series of social accounting matrix (SAM) multiplier models to simulate the local economic impacts in “high-CRP enrolment” counties, were CRP to have expired in 2002. More specifically, under the hypothesised scenario, the simulations yield predictions of changes in output, employment, agricultural prices, income and recreational expenditures for several multistate regions.

Both approaches are useful, but, taken on their own, give only an incomplete picture of CRP's economic effect on rural America. As the authors point out, the two analytical approaches each have their own strengths and weaknesses, but each is fundamentally different from the other. The econometric models attempt to measure the CRP's short- and long-run impacts within the context of changes in the other local, regional, and global factors that influence a community's development. In other words, such models examine how rural counties were faring 5 to 10 years after land was initially enrolled in the CRP, taking into account economic adjustments over the intervening years.

The simulation models, on the other hand, assume that these other factors will remain constant. Given the assumption of fixed inter-sectoral relationships, as the size of the CRP changes, simulation models of the type developed in the study predict the *potential size of the adjustments* that economies will face, rather than the actual outcome of a policy change. Modelling industrial and geographic linkages that determine how national and regional economies might be affected by CRP's expiration,

demonstrates how large the potential adjustments might be, how impacts are distributed within the economy, and how they vary across geographic space.

What did the study find?

The ERS study found that the CRP's aggregate rural economic impacts have been modest and largely transitory. Factors other than CRP determine long-run population and employment trends in rural America and in most cases CRP is seen to play a minor role in the economic and social trends observed in rural counties.

Both analytic approaches suggest that the impacts of CRP on the well-being of rural communities vary widely depending on programme participation, community demographics, and the structure of the local economy. There are economic sectors, households, and communities that benefit from high levels of CRP enrolment, as well as those that are adversely affected.

In interpreting these results, several caveats are in order. First, the study does not address the small-area (sub-county) impacts of CRP enrolment. Second, the econometric models' structural focus is on jobs and income as measures of economic health – which does not adequately reflect the value of the associated environmental impacts. Third, the estimated employment effects derived from the SAM multiplier model might be over-stated, as employment gains in the models are equated with induced changes in labour demand, and supply of labour is perfectly elastic. In addition, CRP payments were modelled as income transfers. But if one considers that CRP enrollees provide non-market environmental services for which they are paid, then CRP farmers who choose to return to crop production when their CRP contract expires are merely changing jobs rather than filling a new job vacancy. Finally, the econometric analyses do not correct for spatial autocorrelation or attempt to rigorously model the adjustment process. This raises the possibility that spillover effects could blur the distinctions between high-CRP economies and their low-CRP counterparts.

Chapter 5. General Principles of Evaluation

Governments in several OECD countries are becoming increasingly aware of the importance of monitoring and evaluating their policies and are devoting considerable efforts to strengthening their monitoring and evaluation systems and capacities. They aim to improve their performance through establishing evidence-based policy-making, evidence-based management and evidence-based accountability.

Evaluation is one of the tools highlighted in recent public-sector reforms and plays a formal role in the policy-making process. To an increasing extent, governments are institutionalising their evaluation activities and requiring ministries and agencies to assess their results. In addition, institutions that finance or co-finance public programmes often require recipients to carry out evaluations or conduct evaluations themselves.

For example, as discussed under heading 4.5, in the EU, rural development evaluation must provide information on the implementation and impact of the co-financed programmes. The aims are, on the one hand, to increase accountability and transparency with regard to the legal and budgetary authorities and the public and, on the other hand, to improve the implementation of the programmes by contributing to informed planning and decisions concerning needs, delivery mechanisms and resource allocation.

The principal objectives of evaluations are to improve decision-making, resource allocation and accountability. Evaluation can help policy makers in the formulation and re-orientation of policies through periodic assessments of policy effectiveness in terms of impacts – both intended and unintended – and of alternative ways of achieving desired results. Yet, there is often confusion about what monitoring and evaluation entails. Understanding evaluation requires clarity concerning the distinction of the common elements of audit, monitoring, and evaluation, as these are complementary, albeit different, exercises.

Evaluation and audit

Although the distinction between audit and evaluation is often somewhat blurred, their objectives are distinct. Traditionally, an audit is an institutionalised activity which seeks to ensure financial regularity and accountability for resources, while evaluation entails a wider perspective and questions whether the objectives of the policy are appropriate and achieved in an efficient and effective way.

Evaluation and monitoring

Monitoring is essentially an ongoing process of collecting and assessing qualitative and quantitative information on the inputs, processes, and outputs of programmes and policies, and the outcomes they aim to address. Monitoring can be distinguished from evaluation in part by its objectives. Whereas monitoring aims to track continuous progress, evaluation aims to assess if particular objectives have been achieved. Evaluation frequently makes a specific attempt to link cause and effect and to attribute changes in outcomes to programme activities. Thus, assessing the *impact* of agricultural

policies on rural economic outcomes, on reduction of rural disparities, and competitiveness generally falls under the domain of evaluation.

Monitoring and evaluation are synergistic, as evaluation relies heavily on data and information collected by monitoring. The existence of well-functioning, regular monitoring systems is often a prerequisite – although not in itself a sufficient basis – for conducting rigorous evaluations. While monitoring information can be collected and used for ongoing management purposes, reliance on such information taken on its own can be misleading because it typically covers only certain dimensions of a policy. In contrast, evaluation has the potential to provide a more balanced interpretation of performance – but the evaluation process is a more detailed and time-consuming activity and the costs entailed are greater.

Because of their complementary, monitoring and evaluation are often discussed together and a combination of both activities provides a comprehensive approach to enhancing policy performance. They can support policy making by providing evidence about the most cost-effective types of government activity.

Monitoring and evaluation can be conducted using a wide array of tools, methods and approaches. These include, for example: performance monitoring indicators; the logical framework; theory-based evaluation; formal surveys such as service delivery surveys, living standards measurement surveys and core welfare indicators questionnaires; rapid appraisal methods such as key informant interviews, focus group discussions and facilitated brainstorming by staff and officials; participatory methods such as participatory monitoring and evaluation; public expenditure tracking surveys; rigorous impact evaluation; and cost-benefit and cost-effectiveness analysis.

5.1 What is evaluation?

In 1999, the OECD Public Management Committee's (PUMA's) Performance Management Network and the Public Management Committee reviewed and endorsed a set of *Best-practice Guidelines for Evaluation* (OECD, 1999). The report points out that there is no general agreement on what constitutes an "evaluation" and the concept is defined in multiple – or even contradictory – ways. This lack of an unambiguous definition stems primarily from the fact that evaluation involves a variety of disciplines (economics, policy and administration studies, statistics, sociology, psychology, etc.), institutions and practitioners. The report points out the terms monitoring and audits are often used to refer to evaluation activities.

The OECD report defines programme evaluation as "a systematic and analytical assessment addressing important aspects of a programme and its value, and seeking reliability and usability of findings". At its simplest, it includes an assessment of a programme's achievements measured against its objectives (*effectiveness*).

Despite the difficulties in arriving at a single, universal definition of evaluation, some key attributes of evaluation can be discerned. For example, evaluations should be:

- Analytical: based on recognised research techniques;
- Systematic: involving careful planning and consistent use of the chosen techniques;
- Reliable: a different evaluator with access to the same data and using similar techniques of data analysis would arrive at similar findings;
- Issue-oriented: address important issues such as the relevance, efficiency and effectiveness of the programme;
- User-driven: executed in ways that provide useful information to decision-makers.

Moreover, a number of different types of evaluation can be distinguished depending on the particular purpose for which an evaluation is required. Evaluation can occur at any *time* in a programme's life-cycle and a distinction is often made between *ex ante* and *ex post* evaluations. The former type of prospective analysis is often termed “policy analysis” or “appraisal”. While policy analysis explores policy options and probable effects, *ex post* evaluation examines the actual effects – positive or negative, intended or otherwise – and assesses the value of policies. *Ex post* – often called impact – evaluation is a type of evaluation which has received increasing attention in recent years and it is an important component of the armoury of evaluation tools and approaches. Nevertheless, the report concludes that the concepts of *ex ante* and *ex post* are inter-linked, and the assessment processes are interactive.

Ex post evaluations can be formative or summative, depending on the exact time at which the evaluation was undertaken. For example, *formative* evaluations are undertaken during the implementation of the policy (an intermediate evaluation) to gain further insight and contribute to a learning process, while *summative* evaluations are carried out when the policy has been in place for some time. A formative evaluation is focused on improving the management and implementation of a programme, whereas summative evaluation seeks to address the questions of programme's outcome and overall relevance. The summative approach is relevant when the interest is on budgetary and/or resource allocation issues, whilst the formative approach is relevant when the concern is on issues of institutional management and efficiency. Evaluations should be both formative and summative, although the emphasis will vary from circumstance to circumstance.

5.2 Evaluation process

There are three phases to an evaluation: evaluation assessment or framework (the planning phase); evaluation study; and decision-making, based on the findings and recommendations. The evaluation assessment phase identifies the main issues and questions to be addressed in the study and develops appropriate methods for identifying them. When evaluation issues and methods for addressing them are considered, a distinction is often made between two levels of results: *operational outputs* and *outcomes*, which include gains to policy beneficiaries – including unintended negative effects on beneficiaries and others – and related outcomes linked to the policy's objectives (e.g. job creation).

The evaluation process is comprised of three major steps: *evaluation design*, *data collection* and an *analytical step*. The *evaluation design* step frames the issue and *intervention logic* model of policy measures used to arrive at conclusions about outcomes. In selecting the evaluation design, the type of information to be retrieved and the type of analysis this information will be subjected to have to be determined simultaneously. For example, to assess the extent to which a programme has achieved a given objective, an indicator of this achievement, as well as an analytical technique for isolating the effect of the programme, must be determined.

Evaluation designs provide the logical basis for measuring results and for attributing results to programmes. Once the evaluation design is established, then specific methods and techniques for implementing the design must be determined. The type of information required – qualitative or quantitative indicators of the achievement of stated objectives – is established at the design stage.

The second stage concerns with the definition of the *data* needed to for addressing specific evaluation questions, which fall under broader evaluation themes, and involves both qualitative and quantitative aspects of the evaluation questions. This task could be complicated, depending on the extent of accessibility, cost and timeliness of data. Deciding which data are most relevant and how to collect them raises the question of *measurement*, which is a crucial methodological issue in evaluation.

Finally, the objective of the *analytical step* is to identify the effects of the policy. Depending on the type of analysis required and the type of data available, specific data analysis methods must be

identified to transform the data gathered into the required information for the evaluation. A wide array of tools, methods and approaches can be used to conduct evaluations. These include, for example: performance monitoring indicators; the logical framework; theory-based evaluation; formal surveys; rapid appraisal methods (such as key informant interviews and focus group discussions by staff and officials); public expenditure tracking surveys; rigorous impact evaluation; and cost-benefit and cost-effectiveness analysis.

5.3 Key evaluation questions

Evaluations typically cover many issues and as a consequence include many questions. While the specific details will be unique to a programme, the following key evaluation questions emerge from the literature as together constituting a comprehensive approach to the task of evaluation. In Box 5.1, these questions are grouped into three broad classes.

First, an evaluation should explore the *rationale* for the particular intervention under examination. This may take the form of asking what market failure the intervention seeks to address. Rationale can be thought of as the ‘why’ question. Why is it necessary for government to intervene in the area concerned? What is the distortion or market failure which the intervention is seeking to address? This is an important issue for summative evaluations.

Box 5.1. Basic programme evaluation questions

A. Continued relevance

Programme rationale

- To what extent are the objectives and mandate of the programme still relevant?
- Are the activities and operational outputs consistent with the programme’s mandate and plausibly linked to the objectives and the other intended results?

B. Programme results

Achievement of objectives

- In what manner and to what extent were appropriate objectives achieved as a result of the programme?

Impacts and effects

- What client benefits and broader outcomes, both intended and unintended, resulted from carrying out the programme?
- In what manner and to what extent does the programme complement, duplicate, overlap or work at cross purposes with other programmes?

C. Cost effectiveness

Assessing alternatives

- Are there alternative and more cost-effective ways of achieving the same objectives and intended results?
- Are there more cost-effective ways of delivering the existing programme?

Source: TBS (2002b).

Second, an evaluation should also assess the *continued relevance* of the programme in question. That is to say the extent to which a policy's objectives continue to be pertinent to government priorities and the needs of society. This is closely linked to the question of the rationale for the intervention. Whereas the rationale for the programme may have been valid at the outset, to what extent do programme objectives remain relevant in the light of changes in the external environment. Does the particular socio-economic problem remain as serious as when the programme was put in place? Have other more pressing needs emerged which call into question the priority attaching to the programme? Care should also be taken to assure that they are *coherent* (i.e. that they do not work against each other), not only within the specific policy scheme but also with regard to the objectives of other programmes.

Third, an evaluation should consider the *effectiveness* of the intervention concerned. Effectiveness is the extent to which the objectives of a programme have been achieved (assuming these have been clearly defined). The question is generally answered by comparing programme outputs and/or expenditure with associated targets. Effectiveness also concerns the extent to which the targeting of the intervention is on course. It is important to note that effectiveness may be defined without reference to costs. It also ignores unintended side effects which may be either positive or negative. For these reasons, most evaluations will go beyond the effectiveness issue.

Fourth, *efficiency* that is, the extent to which the policy achieves its stated objectives at minimum cost, in terms of resource allocation, budgetary expenditure, the administrative costs for implementing, monitoring and enforcing the policy measure. It compares the output of an activity to the resources used.¹¹ Could the outputs or benefits of the intervention be achieved with lower financial and other inputs? It is normally examined by deriving unit costs and comparing these to appropriate benchmarks. In a broader sense, it may involve consideration of alternative programme delivery methods.

Fifth, the question of the *impact*¹² of a programme or intervention is fundamentally important. That is, the extent to which the programme meets its objectives, and whether or not it is within budget or causes significant unwanted results. How to measure the results associated with programme and how to determine whether and to what extent the programme caused the results observed are the two major methodological issues. What are the net effects or changes in the socio-economic situation which can be attributed to the programme?

The key issue here is to assess causality between the intervention and the changes (*intended and unforeseen*, positive and negative) which have come about. Some of the effects might have occurred anyway and should not be attributed to the intervention (*deadweight or non-additionality effects*).

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11. Whereas "*effectiveness*" refers to the extent to which an objective is met (when measured in its own physical units), the (most) *cost-effective* policy is the one that obtains the greatest increase in the target variable(s) per unit of cost, or alternatively for which the cost of attaining a fixed target is the lowest. In economics terminology, the "*best*" policy is the one for which the net social gain (benefit less cost) is greatest; this is also called the (most) *efficient* policy. The difference between cost-effectiveness and efficiency is that, with the latter criterion, benefits as well as costs are quantified in the same money metric, permitting them to be directly compared with each other and with costs. One advantage of the efficiency approach is that it enables multiple benefits having different natural units of measurement (e.g. an increase in employment and an increase in hectares under organic cultivation) to be aggregated in money terms, and the aggregate to be compared with cost.
 12. Where the targets of an intervention are specified in terms of impacts, then *effectiveness* and *impact* are similar. For example, if the objective of a training programme is to improve the employment prospects of participants (compared to what they would otherwise have been), then the measure of the effectiveness of the programme (change in participant employment prospects) is also a measure of impact. If, on the other hand, the objective is simply to train a specified number of participants, the measure of effectiveness of the programme (numbers of persons trained) tells us nothing about its impact. In fact, it is possible that a programme might be fully effective but have little or even no impact.

Deadweight effect may occur because an intervention is not properly targeted or because the market failure rationale is faulty. *Displacement* and *substitution* effects capture the extent to which the benefits of the intervention for particular beneficiaries are realised at the expense of others. For instance an employment subsidy to firms may lead them to employ subsidised workers at the expense of unsubsidised workers who would otherwise have got the jobs (substitution). Alternatively, a firm employing subsidised workers under the scheme may expand market share at the expense of another firm, leading to job losses there (displacement). While displacement and substitution reduce the impact of the programme, they may be acceptable if the objective of the intervention is to explicitly target opportunities towards a particular sector.

Chapter 6.

Evaluating Rural Development Impacts: Conceptual Issues

It is useful to distinguish between three evaluation stages: (a) the *ex ante* appraisal of a policy (the internal coherence of its design and its consistency with objectives, its feasibility given practical constraints), (b) the post-implementation evaluation of its formal (“process”) aspects (whether it has been implemented in accordance with its agreed specification, the public resources used, how funds have been spent and who has received them) and (c) the measurement of its impact on the policy objectives it is intended to promote. Most of the evaluation approaches described in Chapter 4 cover these three aspects. However, less concrete methodological detail is given regarding the third evaluation stage, even though this is the stage where conceptual and methodological issues are most complex, and where the impacts on variables reflecting the *needs* and *intentions* that originally motivate the policies are measured.

This chapter focuses largely on the third stage, on the assumption that approaches and methodologies for performing the first two stages differ little from those for assessing and monitoring public policy interventions generally, whereas at the third stage the particular domain of intervention – rural development – throws up new challenges and problems that are not yet fully resolved. The chapter begins by setting out, at a highly conceptualised level, the ways in which agricultural policies (both agricultural policies without overt rural development objectives, *and* farm-level policies explicitly targeting rural development objectives) might impact on rural development. It presents a schematic overview depicting a complex system of causal pathways, of differing duration, between a policy measure, on the one hand, and the various dimensions of rural development, on the other. It underlines the difficulties of performing a full evaluation in which *all* impacts are taken into account, and implies that policy makers have a choice of how, and how comprehensively, to evaluate the rural development impacts of a policy. Their choice should be based on an awareness of what might be missed or overstated if some causal pathways are ignored or if the evaluation takes place at one point in the causal chain rather than another, or sooner rather than later in the life of the policy.

As illustrated in Chapter 4, the evaluation approaches used by member countries differ in many respects, according to the objective of the policy and the type of measures used, the constraints and preferences of policy makers and administrations, and how long the policy has been running. The second part of this chapter draws on countries’ experiences to highlight, again at a conceptual level, a number of differences in approach, and to identify some general problems.

The final part of this chapter examines critically how evaluation has been dealt with in the academic literature. This literature focuses virtually exclusively on the third evaluation stage, attempting to measure the impacts of policy interventions on final objectives.

6.1 Overview of the causal pathways linking agricultural policies and rural development objectives

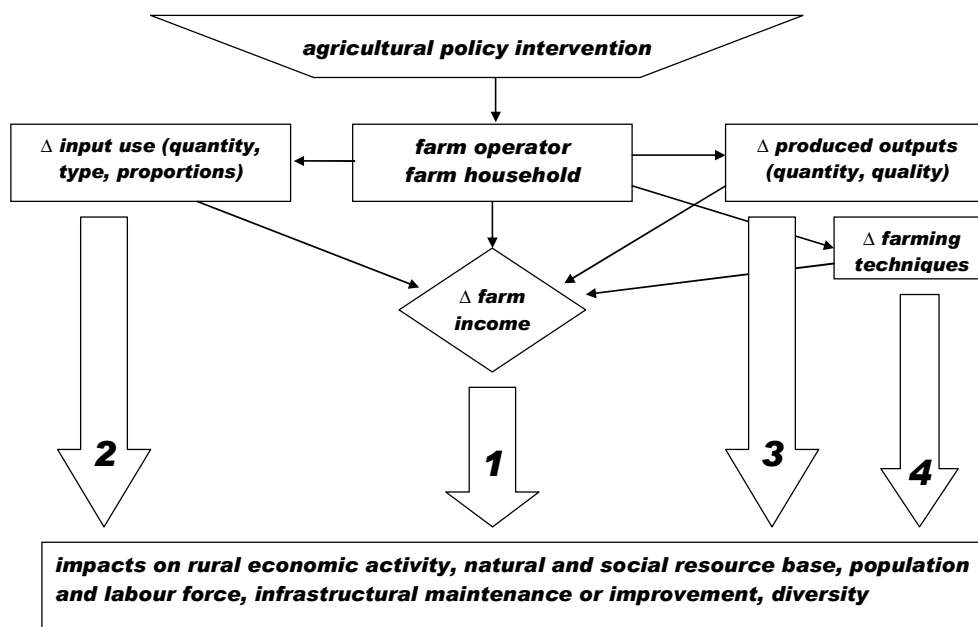
6.1.1 Rural development impacts of agricultural commodity policies

Figure 6.1 provides a stylised picture of the various ways in which agricultural commodity policies – both those intending to influence aspects of commodity production and those intending to improve farmers’ incomes without directly influencing production decisions – might impact on the different dimensions of rural development that have been prioritised by different member countries. The starting point is at the centre-top of the figure, where the farm operator faces a stimulus, incentive or transfer payment due to the agricultural policy.

The first question is whether this in fact changes his behaviour or the outcomes of his behaviour relative to a situation with no policy. In the case of commodity price support, decades of experience with such policies have revealed that they typically change a number of aspects of a farmer’s production choices, leading in turn to a change in income, but that each of these changed aspects can also have its own direct impact that is relevant for rural development.

The resulting impacts on the different rural development dimensions are captured by the large arrows numbered 1 to 4, each of which represents a potential causal pathway. In the case of direct income support, the intended pathway is that denoted by “1”, but if these payments reduce the risk inherent in the production situation, farmers may introduce changes that work along causal pathways falling under one or more of arrows “2” to “4”. For example, farmers may shift to an output mix that includes a higher quality crop with more price risk (arrow “3”) or adopt more environmentally friendly farming methods (arrow “4”).

Figure 6.1. The impacts of agricultural commodity policies on rural development



With a new policy, however, it cannot be taken for granted that farmers will react (or not react) as policy makers intend. Therefore, the question of *whether* and *how* the targeted producers actually change their behaviour is not trivial one, and has to be answered as part of the evaluation.

Pathway 1. Impacts of farm income changes on the rural economy. Farm income here refers to the disposable income that the farm households draw from the agricultural operation after all payments outside the household have been made. The impacts of higher farm income depend on the extent to which farm households spend their consumer income locally, on goods and services that are locally produced. At one extreme is a situation where farm households rely for basic food and non-food purchases on the local supermarket, which is part of a national chain sourcing its products nationally or globally, whilst their other purchases tend to be made in larger regional centres or by internet, and where within the household labour-saving consumer durables have largely replaced labour-intensive services.

At the other extreme is a situation where farm households mainly purchase locally produced food and non-food items, and tend to buy more services (such as cleaning, gardening, leisure services) supplied by local individuals rather than relying more on services provided by their own consumer durables. In the first case, a high proportion of any income change will "leak" out of the local economy, and local income and employment multipliers of increased farm consumer spending will be low. In the second case, the stimulus to local downstream activities will be higher.

A household's position along the spectrum between the two extremes depends partly on its individual consumption preferences, but also in large measure on the extent to which the local economy is integrated into national and international markets. This in turn depends on factors like the remoteness of the local area from large conurbations, the sophistication of national supply chains, and the stage of development of regional transport and distribution networks. Paradoxically, many of the factors that are considered to improve the efficiency of the economy and to favour consumers (in terms of breadth of choice, lower prices through economies of scale and so on) also reduce the local multiplier effect of higher consumer spending by farm households.¹³

Pathway 2. Impacts of changes in input use on the rural economy. A widely observed example of such changes is the substitution of capital and purchased inputs for labour that has been stimulated by decades of commodity price support. Since capital equipment and agri-chemicals are likely to be produced outside the local region, this change means that the share of farm revenues re-circulated locally in the form of agricultural wages to local farm workers has fallen as input expenditure is increasingly diverted outside the region, possibly to the benefit of urban workforces employed by internationally owned corporations. At the same time, lower demand for family labour on farms has released farm household labour for off-farm use, altering the size and possibly the skill composition of the local labour force.

It should be noted that, in the case of decoupled direct income support, if these payments reduce the intensity of purchased input use, then there could be a reduction of the rate of leakage of policy support out of the rural economy *via* causal pathway "2". However, if this is translated into higher

13. Useful terminology for describing how behavioural adjustments and local conditions can affect multipliers are *leakage* (benefits of the intervention flow to recipients outside the target area), *substitution* (in responding positively to the policy initiative, a decision maker reduces other RD-enhancing behaviour, which reduces the net benefit of his response) and *crowding out* (private expenditure/investment falls as a result of the increased public expenditure due to the policy). "Crowding in" (increased public expenditure stimulates private expenditure), if it occurs, has an opposite effect. It is also possible that local multipliers are overstated by *displacement* effects (positive impacts of the intervention occur in the target area at the expense of rural development in other areas) (DTI, 2006).

consumer spending by farm families (arrow “1”), then it should be assessed how much of this increased spending benefits the rural economy (see previous paragraphs on causal pathway “1”).

These changes are complex and so too are their effects on the demand for local labour. For example, over decades of commodity price support and the substitution of capital for farm labour that it encouraged, there was a reduction in demand for unskilled labour (including that of the farmer and his/her family), but an increase in demand for labour to repair and service farm machinery. As farming operations and farm management have become more complex under the stimulus of various policies, farmers have become more inclined to use the services of farm contractors and to outsource certain management activities like the keeping of farm accounts and records (including those records required in order to qualify for policy payments) to local businesses, thus creating jobs in the service sector. Higher demand for these services can foster the development of new skills in the local economy.

Pathway 3. Impacts of changes in the quantity and quality of outputs. Agricultural policies that lead to greater commodity output may stimulate local activities such as feed and food processing, commodity trading and storage, providing these activities are still carried out locally. If these activities have already largely left the rural area and are now performed by national networks, then the impact of higher output on the rural economy will be smaller. The causal impacts will be activated in the opposite sense by policies that reduce incentives to produce.

Agricultural policies that increased quality will give access to higher prices and possibly to new markets. Moreover, especially if protected by a geographical label, higher quality may lead to the creation or growth of locally based processing and marketing activities, with a direct impact on the local economy, and a further indirect impact if the image of the locality is enhanced in ways that have implications for tourism and the leisure sector.

Pathway 4. Impacts of changes in farming techniques. Changes in farming techniques, generally accompanied by changes in input use that are adopted under the incentive of policies aimed at commodity production or farm income, can have significant impacts on the rural resource base (pollution and degradation, damage to landscape and wildlife habitats), that in turn have economic consequences for the rural area (especially *via* the tourism and leisure sectors), as well as impacts on the quality of rural life for local inhabitants (whose utility is directly affected by such changes in their environment) and longer-term implications for the sustainability of future economic activity and environmental amenity.

The links between decisions taken by farmers due to policy incentives and these usually non-priced, hard-to-measure impacts are still not all well understood, because of their complex causal pathways, long time lags and threshold effects. Moreover, apart from their direct economic effects, which can be measured in terms of income changes, it is not easy to quantify their effects on quality of rural life and long-term sustainability in a metric that allows them to be incorporated into a quantified overall assessment of the policy’s rural development impact.

The overview given in Figure 6.1 underlines the fact that, if the rural development impact of an agricultural policy is evaluated only in terms of its explicit objective (such as increasing commodity production in the case of EU farm policies in the 1950s and 1960s (arrow “3”), or, more recently, farm income support [arrow “1”]), evaluation would focus on a single causal pathway and other potentially important links would be missed. For example, policy makers became fully aware only after several decades of commodity price support of its unintended and undesirable consequences in terms of input substitution and environmental damage.

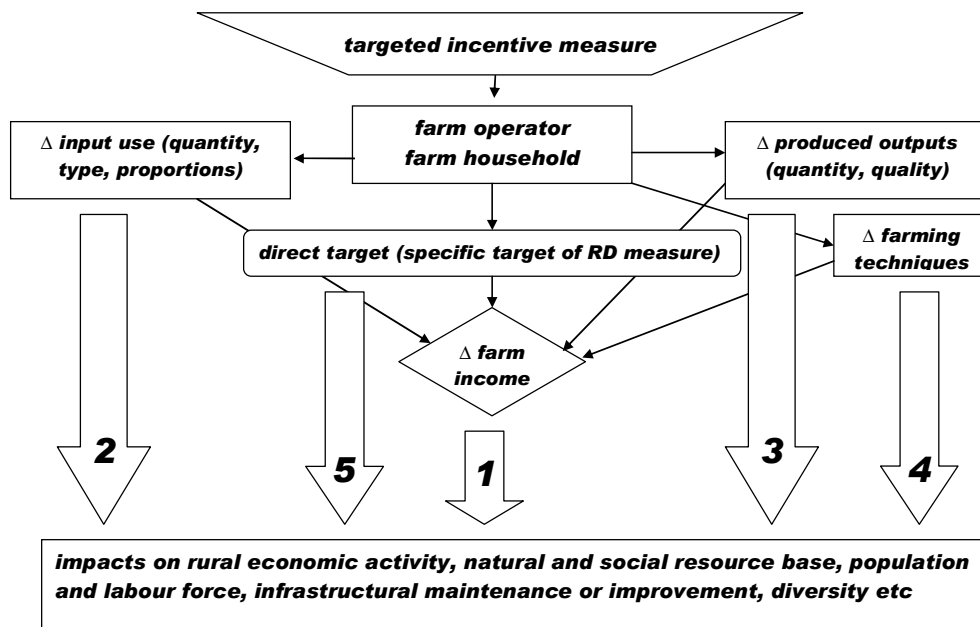
These effects have, however, strong potential (*via* arrows “2” and “4”) to work against any rural development stimulus provided by farm income increases. An assessment of the rural development impacts of commodity support policies that considered only the changes in its explicit target variable (farm income) would have given an on-sided picture.

The lesson to be drawn is that, although it is tempting to evaluate a policy only in terms of its intended objectives, a full appraisal requires checking for unintended consequences as well, bearing in mind the complex set of consequences and ensuing causal pathways that stem from farmers' decision-making.

6.1.2 Rural development impacts of policies that explicitly target rural development objectives

Figure 6.2 depicts the impacts arising from a policy that explicitly targets an outcome considered to promote one or more aspects of rural development. It differs from Figure 6.1 because it involves an explicit RD-enhancing target. Using the EU terminology, this target can be thought of in terms of an “operational” or a “specific” objective. Taking examples mentioned elsewhere in this report, the target could be improved water quality (Australia), or on-farm job creation or risk reduction (EU).

Figure 6.2. The impacts of a targeted rural development measure on rural development



If the policy measure being assessed is voluntary, a first set of questions should concern the rate of uptake of the measure (an “operational” objective, using the EU terminology), but also whether the producers adopting the measure are those likely to obtain the greatest impact from it, and the reasons explaining the choices of adopters and non-adopters.

The overview in Figure 6.2 underscores two important features that are relevant for the evaluation exercise. First, even if the target as specified is met, a full evaluation also requires an assessment to be made of the extent to which fulfilment of the target has actually contributed to rural development in its general, multi-dimensional sense (arrow “5”). The causal pathway given by “5” is a reminder that improved water quality, although desirable in itself, only contributes to rural development if it goes on to improve the quality of life of rural inhabitants and/or the economic prosperity, sustainability or growth of the rural area.

The second important feature is that by the very fact of fulfilling the target, other untargeted and unintended consequences could ensue that impact on rural development *via* their own causal pathways

(arrows “1” to “4”). These additional effects could reinforce, or work against, any rural development-enhancing effects due to “5”. A full assessment would check for the presence of such effects, and if present they would also be incorporated into the evaluation outcome. In Figure 6.2, the arrows “1” to “4” are all shown, but they may not all be relevant in particular cases. For example, an agri-environmental measure that is intended only to cover the costs of complying with the measure does not in theory lead to higher farm income, and hence the arrow labelled “1” would not be an intended causal link.

A rigorous evaluation of the policy would, of course, check to see whether this property of the measure can be verified empirically. At the same time, even if the intended causal pathway *via* “5” is important, it is possible that, in order to satisfy the specific target, there are also changes in input use, output volumes and environmental spillovers from changed farming methods. If so, then the impacts denoted by arrows “2”, “3”, and “4” could still also be relevant, even if of secondary importance.

Figure 6.2 makes it clear that the extent, depth and rigour of the assessment depend on the choice of the policy maker. A minimalist approach would involve evaluating the effectiveness of the policy in terms of its direct specific target, and ignoring all the arrows “1” to “5”, on the assumptions that (a) if the explicit target is met, then it can be taken on trust that there *must* be a positive contribution to rural development, in its wider sense, after some indeterminate lapse of time, and (b) any unintended impacts are negligible in magnitude. In this case, however, the interpretation of the evaluation needs to be carefully nuanced. The question is: has the measure been evaluated *as a rural development measure*? Even if assumptions about what promotes rural development are part of the *motivation* for the policy measure, it would hardly be defensible to claim that the evaluation shows undisputed rural development benefits just because the direct target is fulfilled and the specific objective is met.

At the other, most comprehensive extreme, the policy maker could choose to take all five arrows into account when devising his evaluation strategy. This approach is extremely onerous, and it could be argued that the gains in accuracy from trying to monitor secondary effects (some or all of arrows “1” to “4”) do not compensate for the extra cost of obtaining and integrating the relevant data into the evaluation methodology. A middle way would be to evaluate the impact on the direct target only, and to follow only the causal pathway denoted by arrow “5” in order to link achievement of the target with aspects of rural development. This approach appears to be in line with what is intended by the EU’s methodology, with its hierarchy of objectives and indicators.

6.2 Aspects of evaluation

6.2.1 Timing of evaluation stages

Ex ante evaluation ideally occurs prior to the start of implementation, or at least in the absence of any data on how the policy has been implemented and without reference to what has happened since implementation. Examples are the first component of the RMAF in Canada, and the *ex ante* evaluation of RDP programmes required in the EU discussed in Chapter 5. In this type of evaluation, policies are checked for logical consistency (internally and with respect to objectives), and for overlap, duplication or conflict with other policies. Targets and expected results are quantified, and monitoring procedures (data requirements, methodologies, timetable etc.) are fully specified. Any empirical input should reflect starting (pre-policy) values only, and not be distorted by any post-policy information.

Ex post evaluation occurs once the policy has been implemented. Its terms of reference will vary depending on how long the policy has been running. In the early stages after implementation, impacts will only be partly realised or may be hard to discern. However, more formal aspects of implementation (administrative burdens, take-up rates (in the case of voluntary programmes), unforeseen constraints) could well become apparent quite quickly. An early *ex post* evaluation will serve to identify such

problems quickly so that the programme can be adjusted. This corresponds to what EU terminology calls the “mid-term review”.

However, the full impact of a policy cannot be properly assessed until it has been running for long enough that farmer’s decisions can take effect and their consequences can work through to the relevant performance indicators. Only the full delayed *ex post* evaluation can marshal the evidence required for assessing whether the policy has fulfilled its targets and successfully met its more general objectives. In the case of some rural development measures, full impacts may require many years to be realised, which suggests that *ex post* evaluations performed in order to fit in with budgetary planning periods or according to general one-size-fits-all evaluation timetables may come too soon to permit all the relevant effects of the measure to be picked up.

6.2.2 Evaluation in terms of direct (“specific”) targets versus general rural development objectives

Direct (“specific”) targets are much easier to monitor and measure because: (a) the link between the measure and the direct target is usually well understood *a priori*, whereas the knock-on effects for rural economic activity and well-being are more complex and less easy to formulate; (b) achievement of a single target is easier to evaluate than that of the multidimensional set of rural development objectives; (c) the causal time-lag is shorter; and (d) the more direct and more immediate the link, the less likely it is that other factors (*e.g.* general economic conditions, demographic or technological changes unrelated to the policy measure) will intervene to obscure or distort the link between the measure and the end-result to be evaluated.

From a scientific perspective, evaluation of a policy measure implies the need for a counterfactual scenario that represents what would have happened in the absence of the policy, assuming everything else remained the same (*ceteris paribus*). Ideally, the effects of the policy are measured against the counterfactual. Generally, the use of a counterfactual is not specified in the evaluation approaches described in Chapter 4. The use of indicators, which measure changes in key variables from a baseline recorded at the start of the policy, does not automatically allow the decomposition of these changes into how much is due to the policy and how much would have happened in any case due to factors unrelated to the policy. Unless otherwise stated, it seems to be assumed that the change in the indicator is wholly due to the policy measure to whose evaluation it is linked.

It is clear that (a) the *ceteris paribus* assumption is more tenable, and/or (b) violations of it are easier to identify and take into account when evaluating the achievement of a specific target than when tracing the impacts through further stages to general rural development objectives. Thus, the lack of a counterfactual is less potentially damaging to the reliability of the evaluation of an operational or specific target/objective than to that of a general objective for the rural economy. As has already been argued, however, an evaluation that does not go beyond evaluating specific targets stops short of capturing the full rural development impacts.

6.2.3 Focus on causal pathways (hierarchy approach) versus final outcomes (bottom-line approach)

The “bottom-line” approach attempts to link the use of policy measures directly to final outcomes (impacts on general objectives), without monitoring intermediate stages. Thus, for example, an analyst might use data collected from different rural communities, counties or provinces in an attempt to correlate expenditure on farm modernisation and restructuring programmes per locality with (after an appropriate lag) per capita income growth in the same rural economy.

At first sight, such an approach appears to have some attractive properties: (a) it avoids the need to spell out all the causal links in the hierarchy between immediate 'operational' effects and final "general" effects; (b) as a consequence, data requirements are much less onerous; (c) arguably, the need for a counterfactual has been removed in so far as the exercise is *comparative* over the same time period – that is, by correlating the intensity of the measure and desired effect across areas, one is comparing the use of the measure not with a no-policy counterfactual but with counterfactuals consisting of different levels of the policy measure in the other areas; and (d) the *ceteris paribus* assumption appears likely to hold since other non-policy factors (*e.g.* general macroeconomic developments, changes in other sectoral policies, demographic changes, etc.) have been present for *all* areas over the same time period.

However, the last two of these apparent advantages are less straightforward than might appear: areas are probably not the same in all respects other than the intensity of the policy, and hence using them as counterfactuals for each other may be inappropriate or misleading. In particular, there is a danger that *selection bias* could seriously distort the evaluation results. Selection bias occurs in evaluation studies when the chosen level of the stimulus or treatment (in this example, the level of public spending on farm modernisation and restructuring) is linked to factors that themselves affect the behaviour of the target variable.

Suppose, for example, that the public expenditure being evaluated is allocated as a function of each area's economic performance (which depends on underlying comparative advantages of the regions), so that areas where income growth has been lagging receive a higher proportionate rate of spending. The measured relationship between policy expenditure and growth would then be biased downwards, because areas receiving less expenditure would still be growing well (but due to factors independent of the policy) whereas areas receiving more expenditure may be doing no better than the first group (but again due to other factors not related to the policy, and even if the spending is preventing them from performing even worse).

This problem is equally present if some areas receive no spending at all because their growth rates are considered to be acceptable; such areas cannot serve as an appropriate counterfactual for the areas where the policy is in operation. One way to solve this problem (from the evaluator's point of view) would be to allocate expenditure in different amounts randomly over areas, or deliberately to withhold the measure altogether from some slow-growing areas, which could then act as "control" areas. Of course, from the policy maker's point of view, this is not desirable or politically feasible. Another way of trying to avoid a biased evaluation would be to use sophisticated econometric techniques to try and account for the reasons why different areas receive different treatments. This approach requires more data, more skills and cannot always be successfully applied.

The hierarchy approach is an alternative means of trying to overcome this problem. It does not attempt to establish results by comparing across areas, but directly exploits the causal links implicit in the hierarchy of objectives, and of outcomes, *within* each area. It can be applied to one area in isolation, and hence in a situation where the policy concerned has been implemented in only one area whereas the comparative approach described in the previous paragraph requires a sample consisting of a number of different areas with different levels of policy intervention.

With the hierarchy approach, the effects at each stage in the hypothesised causal chain in a given area are monitored and evaluated. If the effects of the policy are evaluated positively at each stage, then a cumulative case is built in favour of its effectiveness regarding final objectives. However, the problem still remains of precisely quantifying the contribution of the policy to final outcomes in cases where other relevant factors apart from the policy have also been driving the variables of interest.

6.2.4 *Mixing data from different sources and of different types*

Most administrations experience a certain pressure to rely as far as possible on existing data collections rather than collecting new data for particular projects, whether in order to control costs or to guard against ‘respondent fatigue’, which can occur if individuals or groups are approached too often to provide mandatory data or to act as survey participants. At the same time, for many rural development programmes, and especially for evaluating their end-results in terms of rural development objectives, existing data collections cannot provide the data required.

The depth, sharpness of focus and specificity of the evaluation can be affected by whether it relies largely on data provided by all-purpose, on-going data collections, or purpose-built surveys to meet specific evaluation needs. On the one hand, existing data collections are likely to provide a continuity that is lacking with purpose-built surveys. On the other hand, a different kind of information – including more qualitative indicators on normally un-measurable aspects - can be extracted from specially designed surveys, stakeholder consultations and case studies, based on sampling frames or target groups that have not until now been identified as of collective interest.

The combination of more qualitative data, case study data or data from one-off surveys, with information from on-going quantitative data-bases tracking outcomes at a more aggregate level over time, poses a great challenge to evaluators. However, by foregoing the use of such data, evaluators may be shutting out important sources of relevant information. The trade-offs involved here are sharp: higher data costs *versus* the extra benefit of additional information, increased analytical complexity *versus* richer, more pertinent evaluation measures, and greater complexity of interpretation and communication *versus* over-simplification and paucity of insights produced.

Although it is impossible to produce any general guidelines, it is useful to be aware that one-size-fits-all administrative and technical rules about allowable data sources and types of data could greatly reduce the value of particular evaluation processes. Some flexibility in the specification and design of the data input, both at the stage of the *ex ante* evaluation but also once the project is underway, is preferable.

6.2.5 *Effectiveness versus efficiency*

Most of the countries’ evaluation approaches covered in Chapter 4 have specified one or more performance criteria used for making the evaluation. However, few countries have related them explicitly to the evaluation of *final* impacts on rural development objectives. Moreover, where criteria are stated, the precise methodology for assessing whether they have been met is not spelled out. For example, Box 4.1 reports that Australia’s National M&E Framework) attempts to establish which types of intervention work best and are most cost-effective.

However, no details are given regarding the interpretation of these criteria, or the methodology for establishing them. For example, "working best" might be interpreted in the full economic sense involving the monetary valuation of all benefits and costs, or (at the other extreme) simply in qualitative terms regarding, say, the ease of implementation; "cost" could refer to the budget cost alone, or to all relevant social costs (including any costs borne by farmers in implementing measures).

The description of Canada’s RMAF simply mentions that it is designed to provide information permitting an assessment of cost-effectiveness, but again without specifying which costs are to be included in the performance assessment. At each stage of the EU’s hierarchy of objectives and indicators, policy measures are to be assessed in terms of effectiveness and efficiency, but more details are needed in order to appreciate fully what this implies. An important rationale for the new Swiss evaluation strategy is to permit a review of the efficiency of measures, but again no details are provided regarding the appropriate interpretation of efficiency implied here or the underlying methodology.

Finally, the U.S. Office of Management and Budget's distinction between measures of outcome, outcome efficiency and output efficiency attempts to tease out different perspectives on performance measurement. However, from the details given it is not wholly clear whether the latter two performance measures are intended to measure outcomes in money terms or in their natural units, or at what stage in the causal chain they are to be applied (impacts on intermediate targets, or on final rural economy targets).

All the performance measures, and the different ways of quantifying them, mentioned in the previous paragraph provide information of value to policy makers, and can be important for improving policy design and implementation. It is certainly not necessary – or even desirable – to perform a full efficiency assessment (in the strict sense of economics theory) of all policy measures, even if it were feasible – and very often it is not. However, it must be borne in mind that data requirements, methodological complexity, the interpretation of the resulting quantified performance measures and the resulting assessment of the policy are not the same depending on which performance measure is chosen and how much is included in it.

For example, a policy could achieve a good level of cost-effectiveness if only budget costs are taken into account; however, if there are also significant implementation costs to farmers or unintended costs to the environment, its full social cost-effectiveness will be much less. Moreover, if the *social value* of the benefit the policy delivers is low, this will lower its efficiency; in the extreme case, if total social costs exceed aggregate social benefits, its net social contribution will be negative (even if its cost-effectiveness has been verified as acceptable). And whether or not it is the *most efficient* policy for addressing the target(s) would require a similar assessment of the main competing policies, which may or may not have ever been implemented and whose costs and benefits cannot be observed.

Thus, the final judgement of the evaluation is potentially sensitive to the specific performance criterion or criteria employed. It is desirable for an evaluation framework to choose explicitly which performance criteria will be used, and exactly what they will cover. This choice should depend on both political and technical considerations, namely the preferences of policy makers and the feasibility of quantifying the performance measures corresponding to the different criteria.

Once these choices are made, they have direct consequences for the type and amount of data that have to be collected, and the analytical methodologies to be used. Ideally, data and methodologies will be chosen only after, and as a direct consequence of, the specific performance measures that policy makers want to have at their disposal. There is little evidence that this decision sequence lies behind the evaluation approaches described in Chapter 4.

Moreover, once the performance criteria are adopted and implemented, policy makers need to remain aware of their appropriate interpretation. In particular, the more partial the performance measure is and the further away from final rural development objectives targets and results it has been quantified, the less confident one can be about using it to claim undisputed success (or failure) for a particular rural development policy.

6.2.6 Independent reviews of evaluation methodologies

The cost of collecting data and processing them in order to obtain performance indicators is an important consideration. This holds also as regards data collection for parameterising formal evaluation models, and for conducting *ad hoc* analyses that attempt to link measures and outcomes. It follows that care should be taken to avoid the collection of data and the construction of evaluative measures that are not strictly relevant to impacts that need to be measured.

At the same time, it is important not to overlook the measurement of certain variables that in fact turn out to be important in further evaluation stages. It may be extremely costly or impossible to go back

to data sources or reactivate survey instruments in order to recover a few variables that were overlooked during the main data-gathering and processing phases of the evaluation (establishing baselines, tracking impacts over time and so on).

The risk of recording of irrelevant data, of developing too many indicators (including indicators that duplicate each other or do not reflect policy changes), and failing to collect crucial data at the appropriate time, can be reduced to a minimum if the details of all the evaluation stages, including those of the final-stage evaluation methodology, are spelled out explicitly at the start of the policy. These details include the performance criteria to be adopted, whether or not a formal model will be used and, if so, the specification of that model.

In the case of rural development, where the causal pathways are still not perfectly understood *a priori* and many challenges remain regarding the choice of evaluation methodology for assessing final impacts, it will often be difficult at the outset to draw up a complete and optimal blueprint of how the evaluation will proceed and exactly what data inputs will be used. In practice, relevant knowledge will be gained and procedures will become more streamlined and focused through a process of trial and error.

However, as the stakes are high (monetary costs of collecting irrelevant information or costs to policy makers of not having pertinent and conclusive evaluations of past policies to hand), it is important to learn the lessons from any trial-and-error processes as quickly as possible. The implications are that (1) when drawing up evaluation methodologies, characteristics such as the number of indicators used and their relevance, and choices regarding the techniques used to identify final impacts, should be critically challenged, and (2) it is desirable to submit evaluation procedures to periodic reviews by independent experts, accompanied by a commitment that information on shortcomings discovered and scope for improvement identified will be fed back into the process as quickly as possible.

6.3 Evaluation approaches used in academic literature – A critical examination

Agricultural policy evaluation appearing in the academic literature focuses on the third evaluation stage, that is, on the impact of policies on their final objectives. In terms of Figures 6.1 and 6.2, academic studies assess the link between the policy stimulus, as received by the farm operators or other economic agents in the agricultural sector and attempt to measure the resulting changes in the variables representing policy objectives.

Rather than evaluating the impacts of specific agricultural policies, the Dynamics of Rural Areas (DORA) project (see Bryden and Hart, 2003) attempted to establish whether rural economic performance does indeed drive final rural development target variables like population change and employment growth. The existence of this link is, of course, a necessary condition for being able to influence rural development, in the wider sense, by measures directed at the agricultural sector. The project used a series of case-studies across the EU to explore differential economic performance (in terms of medium to long term employment growth, new enterprise formation and migration movements) at local and regional levels. Multidisciplinary in approach, it suggested that different processes of economic change could be explained by combinations of interacting tangible and less easily measurable factors, which both modify external influences and condition the rural economy's capacity to react to them. The study concluded that, at local level, differences in rural economic performance were associated statistically and by interviewees' perceptions, with population change, net migration flows, new enterprise start-ups, activity rates, employment growth, levels of education and training in the labour force, and tourism accommodation occupancy rates.

However, it also appeared that a standard explanation of regional economic performance was difficult to achieve because important intangible factors – institutional performance, culture and community, and quality of life – interacted with natural resources, human resources, infrastructure,

investment, and economic structures in different ways depending on the area. Some explanatory clues explaining better growth did emerge: ability to take up "new rural economy" activities in ICT, tourism, recreation and niche markets; single sector (including public sector) dependence; and accessibility through effective infrastructure to major markets.

The theme of intangible influences on rural development processes was taken up by the Restructuring in Marginal Rural Areas (RESTRIM: the role of social capital in rural development) project (see Lee *et al.*, 2005), which also used a case study approach. In this instance, however, more efforts were put into investigating local attempts to respond to economic pressures on rural areas. Acknowledging the difficulties of measuring social capital, the project used the concept as a metaphor for the qualities of social relationships that allow benefits to be secured through them. These qualities, observed as arising through networks of interaction, can explain how rural people capture or contain benefits of development, within rural communities but also through links to the wider economy and society.

The evidence it assembled focused on different perspectives of social capital, rurality and development. This ranged from a focus on new roles for rural local governance, where movement beyond traditional service provision by local authorities had stimulated social and economic development; on the foundation of economic activities in already existing social relationships, and differences in these (and changes in them in progress) which contribute to development; on understandings of development itself, where local rural people are concerned to defend existing ways of earning a living and continuing social relationships, conflicting with external comprehensions of progress; and on attempts to create new networks through partnerships of institutions and individuals with the specific intention of generating capacity to improve economic benefits derived from networks of social relationships.

The project concluded that attempts to support social capital accumulation can assist in the long-term process of rural development. However, noting a danger that networks and social capital can be secured by individuals or groups within societies to limit the benefits to the overall rural population, it suggested an emphasis on widespread popular engagement in future policy development.

In the United States, a study by Porter *et al.* (2004) came to similar conclusions about the importance of trust for successful collaboration and rural development progress. Applying the Porterian lens of competitiveness to rural regions – which places agglomeration economies at the centre of the factors influencing the economic performance of regions (Porter, 1990),¹⁴ it uses a literature review of prior case studies and analysis of the Cluster Mapping Project¹⁵ database. These provide some evidence supporting the assertion that competitiveness based on rival firms and institutions gathered in clusters (with consequence abundance of specific forms of social capital to fuel their efforts) are as important for rural development success as they are for regional economies. The study concludes that, combining the relative attractiveness of the countryside in terms of quality of life, and improvements in (particularly electronic) communications, the spread of external economies should not inhibit the development of internationally competitive *rural* clusters, and that, in particular, investment in human capital can accelerate that process.

14. This is in contrast to the "New Economic Geography" literature, whereas productivity – the basis of economic performance – is determined by the extent to which the regional mix of activities is engaged in external trade, allowing the limitations of the local market to be transcended and advantage to be taken of internal and external scale economies (Krugman, 1998). Krugman's (1991) approach emphasises the degree of openness of regional economies to provide stimulation for the development of absolute cost advantage in exported products and services, and explains economic success in terms of developments in knowledge-intensity and quality advantages.

15. See http://data.isc.hbs.edu/isc/cmp_overview.jsp.

The study concludes that, while clear commitment to mobilising the inherent potential of rural economies exists, an overall framework providing policy makers with guidance on developing and implementing new strategies is lacking; policies need to account for this, and the heterogeneity of rural areas, by devolving decision-making from state or national level to communities themselves at the local and regional level. However, a final conclusion is that processes for economic development for rural areas are not well understood and should be a priority for further research.

The implications of the DORA and RESTRIM projects and the Porter *et al.* study for analysis of linkages between agricultural policy reform and sustainable rural development are few, but nevertheless important. Structural characteristics of rural economies, in terms of accessibility to new markets, opportunities for diversification, and quality of local capacity to adapt and respond to economic change will determine the extent of vulnerability to the negative consequences of policy change, and the degree of success in engaging with the opportunities which it provides.

These three studies, all of which address the general question of why some rural economies succeed better than others, conclude that complex interactions between local endowments, structural conditions and institutional factors play a determining role for local economic performance. These insights need to be borne in mind when evaluating the success of particular rural development policies in specific contexts. This highlights the desirability of a counterfactual scenario, which would also embody these other factors and therefore help to isolate the impacts *ceteris paribus* of any policy intervention.

In the search for a counterfactual, McGranahan and Sullivan (2005) took what was characterised under heading 6.2 as the “bottom-line approach” in order to examine whether direct farm programme payments (*e.g.* production flexibility contracts, direct payments, *ad hoc* emergency payments, counter-cyclical payments, loan deficiency payments, etc.) enhance the vitality of rural communities in the United States. Such payments, by maintaining farm household incomes, allow households to remain viable and to continue purchasing local goods and services. This in turn may help to sustain rural communities and their population base, even if it was not the original intention of the programmes (causal pathways “1” and “2” in Figure 6.1).

Their method compares population changes (taken as a measure of rural vitality) between high payment counties and all other rural counties during different periods between 1980 and 2003. It was found that many rural communities receiving high farm payments on a consistent basis have actually lost population, even during periods when almost all other rural communities were witnessing population gains. ERS developed a statistical model to explain the difference in population growth between these two groups of counties between 1990 and 2000, according to which non-agricultural factors such as rural amenities (lakes, temperate climate, mix of forest and open space), population density, economic characteristics and demographic attributes accounted for most of the differences.

This indicates the operation of a kind of selection bias: counties receiving high levels of payments do so precisely because they are predominantly agricultural and possess fewer of the attributes that are strong drivers of non-agricultural incomes and that attract incomers; thus, grouping counties according to payment levels also has the effect of separating out those counties that tend to have lower levels of these other factors. Therefore, the persistence of the difference in population change between high farm payment counties and other rural counties does not necessarily mean that farm payment programmes cannot affect rural economic development. Moreover, the authors offer additional reasons for caution in interpreting the results, namely that the analysis is static, and does not incorporate farmers’ future expectations concerning the level of payments and market prices.

The need for a counterfactual scenario is a major reason explaining academic economists’ predilection for using formal models to analyse the effects of agricultural policies. Once the workings of the economic processes in question have been formalised in the equations of the model and the ways in

which particular policies can modify agents' behavioural responses are also incorporated, it is relatively easy to run the model, first without the policy in operation, and second with the policy activated (but keeping everything else the same). The first simulation serves as the counterfactual for the second, and all differences between the outcomes of the two simulations can be interpreted as due to the policy being evaluated.

The extent to which these policy evaluation models can provide reliable insights depends principally on three factors: (a) the formal, technical attributes of the model (some types of policy simulation model are expected to give more realistic depictions of sectoral and economy-wide behaviour than others, as is explained below), (b) the extent to which the causal pathways along which the particular policy works have been identified and understood from primary research, and can hence be sensibly depicted in the model, and (c) the reliability of the parameterisation of the model.

Regarding the technical properties of formal simulation models are concerned, three levels of sophistication in approach can be identified:

- The standard, open, fixed-price input-output (I-O) model, which focuses purely on how production activities react to given levels of final demands for products (for example, Johns and Leat, 1987; Midmore, 1993; Olfert and Stabler, 1994; Harrison-Mayfield *et al.*, 1998; Sharma *et al.*, 1999; Caskie *et al.*, 2001; Eiser and Roberts, 2002; Ciobanu *et al.*, 2004);
- Social Accounting Matrix (SAM) multiplier models, which embed an I-O model of the production sector but extend the coverage to household consumption and income distribution, the functions of other institutions contributing to demand, and may in some cases relax the fixed price assumption inherent in I-O models (see, for example, Roberts, 1995 and 2003; Leatherman and Marcouiller, 1996; Kilkenny, 1999; Psaltopoulos *et al.*, 2006); and
- Computerised General Equilibrium (CGE) models, which transcend the demand-driven nature of basic models and take into account feed-back from other sectors in the economy (for example, Higgs and Powell, 1990; Kilkenny, 1993; McDonald and Roberts, 1998; Olatubi and Hughes, 2002).

There are well-known limits to the usefulness of the basic Leontief input-output model (reliance on linear, proportionate, constant returns to scale production functions, and assumptions of elastic supply conditions: see, for example, McGregor *et al.*, 1996), and more recent developments attempt to overcome their limits. SAM multiplier models (accounting and fixed-price versions) allow for more detailed interaction between production sectors and other institutions such as households, investment and saving, government sectors and trade accounts. SAM multiplier models, extended by econometrically estimated behavioural equations incorporating¹⁶ non-linear responses and/or dynamic responses add an extra degree of flexibility (see, for example, Lemelin, 2008). The richest of these models allow for non-market clearing, imperfect competition and the effects of taxes and subsidies on transactions volumes. Computable (or Applied) General Equilibrium (CGE, or AGE) models have also been applied in the context of predominantly rural regions to explore policy-relevant issues. With appropriately modelled shocks, CGE models can track how the effects of a policy-induced impact on one sector are transmitted through the whole of the economy of a particular region and also the effects on the distribution of impacts on particular social groups or classes within income distributions.

16. By *embedding, linking or coupling* procedures.

A number of I-O models have been built to focus predominantly on rural regions, and have analysed a wide variety of policies and non-policy shocks. For example, Midmore (1993) examined the efficiency of a regional input-output model for capturing the impacts of quota restriction on milk output in Wales. In a study of community economic development initiatives in Saskatchewan province in Canada, Olfert and Stabler (1994) identified a multiplier hierarchy across functional geographical levels with smallest communities having the smallest multipliers; building on this framework (1999), they integrated the estimated multipliers at community level with cross-community and system-wide spending impacts, showing that expenditure increases have disproportionate impacts at the top of the hierarchy, providing some indications of the nature of rural-urban dependence.

Mayfield *et al.* (1998) used local input-output models in Norfolk, Devon and Derbyshire in the United Kingdom to estimate impacts of an agri-environment scheme on incomes and employment and concluded that while overall impacts were at best mildly positive, marked redistributive effects occurred from urban centres to rural areas, and away from capital-intensive agricultural supply and food industries. Sharma *et al.* (1999) constructed a regional model exploring the impact of the relatively small agricultural sector on the Hawaiian economy, concluding that rather larger indirect consequences resulted on labour income, value added, and total employment from changes in agricultural final demand.

The effects of the BSE shock on a predominantly rural economy were estimated by Caskie *et al.* (2001) using an input-output model of Northern Ireland; taking account of substitution effects in final demand, most of the impacts were concentrated in the beef production sector itself. Ciobanu *et al.* (2004) used an input-output framework to investigate long-term structural changes on the regional economy of East Macedonia and Thrace in North East Greece, showing significant transformations affecting both producing and consuming sectors, and although final demand effects on gross output were more important than productivity enhancement, employment reduced significantly.

Also using a necessarily long-term perspective, quite substantial effort has also been devoted to modelling forestry and its interdependence with other sectors in the rural economy. Munday and Roberts (2001), noting some specific methodological problems that use of a short-run approach involves, nevertheless demonstrated some clear and important interdependences within forestry-related rural economic sectors. Eiser and Roberts (2002) examined the consequences, in terms of output and employment, of a shift in production from coniferous plantation forestry to broadleaf and native species in Scotland; forestry is a significant competitor to agriculture in this region so they also compared conservation forestry with linkage effects generated by farmland of average productivity. In both cases, the impacts were greater from the policy-driven establishment of multi-benefit woodlands. Further work using a similar perspective in Scotland examined a range of potential future scenarios (assuming various rates of expansion, compared with a "green" multi-benefit option), but in contrast with Eiser's and Roberts' findings, conservation-type production produced the lowest rate of employment generated.

Using the more comprehensive SAM framework, Leatherman and Marcouiller (1996) demonstrated how a uniform increase in demand in agricultural production, agri-food processing, forestry production and processing, and tourism affected the distribution of household income in South-western counties of rural Wisconsin. They found that middle-income households gained the highest increase in incomes from agricultural expansion. Low-income households gained most from tourism promotion, as also did high-income households; however, the increase for low-income households in the latter case was only 5% of that accruing to high-income households.

Roberts (2000) explored the interaction between rural areas and their urban pole in the Grampian region in north-east Scotland, using a bi-regional SAM that could estimate inter- as well as intra-local economic interactions, and, usefully, compared the broader SAM results with those derived from a traditional input-output model. She found stronger spill-over effects from the urban to the rural locality, compared to the other direction from rural to urban; in contrast, the input-output model indicated the

opposite conclusion. Roberts (2005) used a SAM-based approach to trace the interdependence of consumption by rural residents and local businesses. She found that rural households have become more diverse in terms of the geographic origin of their income and their spatial spending patterns with the result that the economic well being of rural businesses and that of rural residents are less interdependent than in the past. Similarly, Mayfield and van Leeuwen (2005) used town-hinterland SAMs in a number of localities in the Netherlands and the United Kingdom to identify employment and income benefits of agro-food processing.

More recently, Psaltopoulos *et al.* (2006) examined inter-linkages between two rural localities and an urban centre in Crete, and the diffusion patterns of economic impacts of three elements of the CAP; commodity support, investment to improve farm structures, and promotion of economic diversification. In essence, their results showed that the benefits of rural support flowed substantially into the urban economy; that high-income households gained most from commodity support; and that measures that promote economic diversification appear to favour middle-income households.

CGE models, founded on SAM databases, introduce estimates of elasticities to reflect resource constraints, particularly with respect to labour costs. In general terms, such models indicate smaller effects of demand changes (Harrigan *et al.*, 1991). An early application (Higgs and Powell, 1990) used the structure of a national CGE model of Australia to estimate the effects of commodity price changes on real farm incomes. Kilkenny (1998) demonstrates the usefulness of the approach in identifying rural-urban interdependence where transport costs, sparseness of population and dependence on primary industries affect the relations between differently located firms and households.

Subsequently Kilkenny (1999) showed how fiscal policy changes specifically can affect rural welfare through inter-industry and inter-locality interdependence. Olatubi and Hughes (2002) used a CGE approach to model the effects of the Reserve Wetland Program on the economy of Louisiana, and showed that while the effects on the aggregate economy were minimal, distributional changes between factor owners and households were more important. Balamou *et al.* (2008) used bi-regional CGEs (urban core-rural hinterland) in two contrasting case studies to examine the impacts of decoupling of commodity support. The differing results (in Scotland, shocks were contained within the primary sector, whereas in Greece, the effects were more widely spread across rural and urban groups) are attributed to linkages between agriculture and initial processing, and ownership patterns of agricultural factors; however, the incidence of gainers and losers provided support for more sophistication in spatial and sectoral targeting of measures compensating for reform impacts.

A current, on-going attempt to consolidate both quantitative and qualitative perspectives is being constructed in the Socio-Economic Benefits Assessment System (SEBAS) (Johnson, 2005) and in the POMMARD (Policy Model of Multifunctional Agriculture and Territorial Rural Development) modelling framework (Johnson *et al.*, 2008). SEBAS is an evaluation tool developed by the Community Policy Analysis Centre of the University of Missouri, Columbia, to evaluate the effectiveness of USDA's rural development programmes (*e.g.* loans, loan guarantees, and grant and technical assistance programmes), using various quantitative measures of local and regional economic performance (*e.g.* GDP, net new full-time equivalent employment, etc.). Based on a multi-regional SAM modelling methodology, SEBAS generates the standard impact indicators that are provided by most regional economic impact models. The information requirements for SEBAS assessment may be overly burdensome as, in addition to difficulties in constructing multi-regional SAMs, its precision also rests on the accuracy of the data provided by the recipients of the loans and grants. The SEBAS model was used to evaluate the economic impacts of the Direct Farm Payments Program and the Business and Industry Loan Guarantees Program (Johnson *et al.*, 2007). It was found that, although both programmes have short-run impacts on the local economy, the guaranteed loan programme also had long-run impacts.

POMMARD is an interdisciplinary-based model of agriculture and rural development for application in a succession of regional contexts. It is organised within the framework of a dynamic input-output model and regional SAMs and represents the interaction across time of land-uses, population levels and migration, tourism activity, public goods, overall demand and investment, and rural quality of life dimensions. This core model has been specifically designed to analyse the effects of agricultural policy reform shocks – such as reduced commodity prices – on the structure and functioning of the economies of rural regions. The initial application of the model in two regions of Scotland and Norway indicates the relative strength of impacts of different types of support, but highlight problems stemming from inadequate empirical foundations for the initial conditions of the model and its behavioural coefficients (Bergmann and Thomson, 2008; Refsgaard and Prestergard, 2008).

A formal modelling approach has the potential to produce insights into policy impacts only when the relevant causal pathways are well understood and can be realistically depicted in the simulation model. This is especially problematic in the case of new policies, in the absence of primary research to determine how agents reacted to the policy and to provide data from which reliable response parameters can be extracted. Without this primary empirical research, modellers fall back on general predictions from economic theory (of how rational agents *should* react) and on "best guesses" about likely response parameters (sometimes labelled "expert knowledge").

This kind of parameterisation cannot, for example, reflect the contextual factors identified by DORA, RESTRIM and Porter (see above) as being important for conditioning policy impacts. In particular cases, inadequate parameterisation can introduce large margins of error. This is exacerbated when dealing with regional and local models, since statistical and administrative services do not customarily record intra-regional flows. It follows that the data required for measuring the share of new spending that "leaks" from rural areas as opposed to the share that is re-circulated (and how much of that remains in the local economy rather than leaking at a following stage) are generally lacking. Yet these data are crucial for establishing local income multipliers. The most reliable regional models are based on intensive analysis of the transactions data obtained from surveyed businesses, households and other relevant economic agents, which is a very labour-intensive and time-consuming process (see, for example, Doyle *et al.*, 1997; Roberts, 2005). These data requirements are compounded yet further for spatial regional models that try to model more accurately the flows between regions taking transport costs and different degrees of market integration (which could account more accurately for displacement and leakage phenomena).

In conclusion, it is clear that while the effects of changes in agricultural policies on the functioning of rural economies can be determined on aggregate, and to an extent on regional and local distributional impacts by using economic modelling techniques, their impact on the processes producing these outcomes are significantly dependent on contextual factors that are usually not well reflected in the current generation of models. It is also clear that the studies that have so far been produced are limited and resource-intensive, even though these approaches are potentially the most relevant for the third evaluation stage and are urgently needed to complete the evaluation effort that is being mounted by public decision makers. One of the challenges emerging from this overview is for closer dialogue between those designing evaluation strategies, data collection and methodologies in public administrations, and modellers as regards, on the one hand, specific evaluation objectives, and on the other, the information needed to undertake a rigorous evaluation, whether model-based or not, in the third stage.

Chapter 7. Best-practice Evaluation Guidelines

From the discussion in Chapter 6, a set of suggested best-practice guidelines can be drawn. These guidelines reflect in part the most promising aspects of approaches already adopted by OECD member countries, but also new ways in which it would be desirable to extend or refine evaluation approaches in the future in order to overcome particular problems that have been identified in current practice.

- a. Formal evaluation should begin with an *ex ante* appraisal, ideally at the design and planning stage, and that the results and implications of this first stage should be formally integrated into the further evaluation stages.
- b. *Ex post* evaluations should be timed to reflect the expected lags in the causal pathways that link policy measures with ultimate targets and objectives.
- c. The judgement produced at the end of the evaluation outcome should take into account the appropriate interpretation, and the shortcomings if any, of the performance criterion or criteria used in the evaluation.
- d. Given the heterogeneous and uncertain time lags involved in influencing rural development targets, care should be taken in timing the final evaluation too soon. However, interim or mid-term evaluations are essential to ensure that the policies are on track, especially when cause-effect delays are expected to be long. Ideally, the timing and expected results of interim reviews should be specified in the *ex ante* evaluation, with a provision for adjusting long-term targets if the interim evidence reveals problems that were not foreseen at the design stage.
- e. When results of interim or final evaluations do not match with expectations, it is important to be able to *explain* these discrepancies. This means that some resources should be earmarked in the evaluation budget for supplementary studies or surveys in order to find out why outcomes do not match expectations. These studies should not necessarily focus only on implementation, but in some cases might usefully include a post-evidence reappraisal of the feasibility of the expected impacts and quantified targets that were identified at the *ex ante* stage.
- f. An evaluation methodology of the impacts of agricultural policies on rural development should specify whether it is intended to follow impacts of agricultural policies through to explicit rural development targets, or whether only "intermediate" ("specific") targets will be evaluated, on the *assumption* that these targets enhance one or more of the dimensions of rural development.
- g. Various criteria have been proposed for ensuring the quality of performance indicators. They are well summarised by the acronym SMART (see, for example, IDEA/ECORYS, 2005), standing for the following attributes: Specific (precise and concrete, easy to understand and communicate); Measurable (susceptible to quantification); Available/Achievable (quantifiable in a cost-effective way); Relevant (should closely reflect the success of the programme measure); Timely (should be available without delay, and be sensitive to changes in success over time). Even when an indicator

meets these requirements, it should still be interpreted with prudence because of its potential distortion by non-policy factors (see the following point). Moreover, performance indicators of the cost per outcome (*e.g.* cost per job created) need to be compared with those estimated for similar programmes using similar methodology.

- h. When a relevant counterfactual (benchmark) is lacking and the change in indicators measured relative to a baseline is used for evaluation, these changes could over- or under-state the true impact of the policy, because other factors have not been held constant. Evaluators should be cautious about interpreting the change in the indicator as a reliable indicator of the policy impact. Ideally, the quantified indicator changes would be accompanied by a qualitative assessment identifying other (unmeasured) factors that may have been working in the same – or the opposite – direction to the policy, so that users can form a view of whether the measured change in the indicator might be biased upwards or downwards.
- i. Ideally, details of the whole evaluation strategy should be available at the start of the project, in order to avoid costly collection of redundant data or gaps in data collection that will be difficult to remedy at a later stage.
- j. It is useful in designing an evaluation strategy to begin by specifying which performance measures policy makers want to have at their disposal, and then to identify data requirements and analytical methodologies as a direct consequence of these choices.
- k. Despite cost considerations, evaluators should consider the use of new and more direct data sources for obtaining inputs to cover information gaps. In particular, as well as relying on quantitative data from existing, on-going data collections, it can be useful to involve programme-specific partners and stakeholders in the evaluation process.
- l. There is a need for closer dialogue between those designing evaluation strategies (data collection and methodologies) in public administrations, and modellers (whether in the same administrations or in academia) as regards, on the one hand, the specific evaluation objectives that modellers should address, and on the other, the information needed to be collected in order to permit a rigorous evaluation, with an appropriate empirical content, in the third stage.
- m. When rural development programmes specifically related to agriculture are small in scale, undertaking fully-fledged comprehensive evaluations might be difficult to justify due to the higher costs involved.
- n. Given that the evaluation of rural development measures is still in its infancy, and there are many lessons still to be learned, it is desirable to submit evaluation procedures – at least for the large-scale programmes – to periodic review by independent experts, accompanied by a commitment that information on shortcomings discovered and scope for improvement identified will be fed back into the process as quickly as possible.

Annexes

Annex 1. Performance Audit of the Australian Regional Partnerships Program

The Regional Partnerships Program (RPP), which was in force for the mid-2003 to mid-2008 period and was administered by the Department of Transport and Regional Services (DOTARS), integrated in a single package a number of previously separate key regional funding programmes, including Dairy Regional Assistance, Rural Transaction Centres and various regional structural adjustment programmes (ANAO, 2008*b*). It targeted four broad priority areas of strengthening growth and opportunities, improving access to services, supporting planning and assisting structural adjustments for regions affected by major economic, social or environmental change.

The RPP had broadly based assessment criteria and funding decisions are taken by ministers. Between 2003-04 and 2006-07 total funding of AUS 410 million was allocated for expenditure on grants and payments. In that period total actual expenditure was AUS 328 million. The 2007-08 Budget included an allocation of AUS 90 million for 2007–08, of which 81% was for grants. Between 1 July 2003 and 30 June 2006, 1 413 projects were considered for funding.

Since it was set up in 2003, the RPP has come under considerable scrutiny concerning both its design and its overall administration. The audit commenced in January 2006, with the objective of assessing whether the RPP has been effectively managed over the 2003-06 period by DOTARS, including the processes by which:

- Applications are sought, received and assessed;
- Funding agreements with grant recipients are developed and managed; and
- The achievement of project and programme outcomes is monitored and assessed.

The audit methodology involved examining records held by both DOTARS and of local Area Consultative Committees (ACCs). It also involved inspecting a selection of projects funded under the RPP, and consultation with organisations and individuals applying for grants. A case study approach was used to examine in detail the circumstances surrounding the application, assessment, approval and announcement of RPP funds for twenty-four projects. In particular, all ministerial funding decisions taken over the first three years of the Program, as well as the changes in administrative procedures and practices throughout the life of the Program, were analysed. The audit sample included approximately 20% of projects approved for funding during the three years examined.

The ANAO concluded that the Program's administration was not always seen to be transparent, accountable or equitable and that it fell short of an acceptable standard of public administration. The ANAO made 19 recommendations for improving departmental procedures and practices, and to encourage further attention to aspects of the Program's administration in the interests of improving transparency and accountability. An additional recommendation was directed at enhancing the existing framework governing the expenditure of public money, including the use of discretionary grants

programmes such as Regional Partnerships.¹⁷ In response to audit findings and the department's own observations, a number of changes to the administration of the Program were either introduced by the department, or proposed to the Ministerial Committee. Finally, with the 2009 Budget, the Program was replaced with a new Regional and Local Community Infrastructure Program.

Annex 2. List of questions used in the mid-term evaluation of the 2000-06 rural development programmes in the EU

A.2.1. Rural development measures linked to restructuring and improving competitiveness in agriculture

1.1. Investments in agricultural holdings

1. To what extent have supported investments improved the income of beneficiary farmers?
2. To what extent have supported investments contributed to a better use of production factors on holdings?
3. To what extent have supported investments contributed to the re-orientation of farming activities?
4. To what extent have supported investments improved the quality of farm products?
5. To what extent has the diversification of on-farm activities originating from supported alternative activities helped maintain employment?
6. To what extent have supported investments facilitated environmentally friendly farming?
7. To what extent have supported investments improved production conditions in terms of better working conditions and animal welfare?

1.2. Setting-up of young farmers

1. To what extent has the aid for setting up covered the costs arising from setting up?
2. To what extent has the setting-up aid contributed to the earlier transfer of farms (to relatives *versus* non-relatives)?
3. To what extent has the setting-up aid contributed to the earlier transfer of farms (to relatives *versus* non-relatives) in particular, how significant was the synergy with the aid for early retirement in achieving such an earlier transfer?
4. To what extent has the aid influenced the number of young farmers of either sex setting up?
5. To what extent has the setting up of young farmers contributed to safeguarding employment?

17. Following the 9 December 2008 announcement, by the Minister for Finance and Deregulation, of reforms to improve decision-making, transparency and accountability around the allocation of grants administered by all Australian government departments and agencies – including responding to the ANAO recommendation – there will now be a legal requirement for Ministers and officials to record the basis on which they are satisfied that approving particular grants is an efficient and effective use of public money.

1.3 Training

1. To what extent are the assisted training courses in accordance with needs and coherent with other measures of the programme?
2. To what extent have the acquired skills/competences helped improve the situation of the trainees and of the agricultural/forestry sector?

1.4 Early retirement

1. To what extent has aid for early retirement contributed to the earlier transfer of farms?
2. To what extent has aid for early retirement contributed to the earlier transfer of farms. In particular, to what extent has there been synergy between "early retirement" and "setting-up of young farmers" in terms of an earlier change of holders?
3. To what extent has the economic viability of the remaining agricultural holdings improved?
4. Was the income offered to the transferors appropriate in terms of encouraging them to abandon farming and subsequently offering them a fair standard of living?

1.5 Improving processing procedures and marketing of agricultural products

1. To what extent have the supported investments helped to increase the competitiveness of agricultural products through improved and rationalised processing and marketing of agricultural products?
2. To what extent have the supported investments helped to increase the added value and competitiveness of agricultural products by improving their quality?
3. To what extent have the supported investments improved the situation of the basic agricultural production sector?
4. To what extent have the supported investments improved health and welfare?
5. To what extent have the supported investments protected the environment?

1.6 Wider evaluation questions

1. Are the existing Rural Development measures for agricultural restructuring (*e.g.* scope, level of public funding and co-financing rates) sufficiently comprehensive and flexible to meet the different contexts and needs of different rural areas?
2. Would the support of the non-agricultural sector in rural economies be supportive of agricultural restructuring?
 - How these types of support contribute to agricultural restructuring, for example, by:
 - Offering an alternative source of income or way of making a living in rural areas (switch to other occupations/types of business);
 - Providing a market for new types of agricultural products).
3. Degree of effectiveness of existing agricultural restructuring measures:
 - What have the existing agricultural restructuring measures achieved so far, and how has this been measured?

- Are they adequate and effective to address the problems of the agricultural sector?
4. Degree of efficiency of existing agricultural restructuring measures:
- Are the incentives stronger than necessary so that windfall profits are created?
 - Do shortcomings in the current implementation practice of rural development programmes exist, and what alternative financing mechanisms might be considered (*e.g.* loans and revolving funds)?

A.2.2. Rural development measures linked to environment and land management

2.1 Less-favoured Areas and areas with environmental restrictions

1. To what extent has the scheme contributed to:
 - a. Offsetting the natural handicaps in LFAs in terms of high production costs and low production potential?
 - b. Compensating for costs incurred and income foregone in areas with environmental restrictions? (concerns both LFA and Areas with Environmental Restrictions)
2. To what extent have compensatory allowances helped in ensuring continued agricultural land-use (concerns LFA)?
3. How effective is the LFA measure in preventing the abandoning of agricultural land-use?
4. To what extent have compensatory allowances contributed to the maintenance of a viable rural community (concerns LFA)?
5. To what extent has the scheme contributed to the protection of the environment by maintaining or promoting sustainable farming that takes account of environmental protection requirements in LFA?
6. To what extent has the scheme contributed to the protection of the environment by increasing the implementation and respect of environmental restrictions based on Community environmental protection rules (concerns AER)?
7. Are the currently used criteria for the classification of LFA and for fixing the level of Compensatory Allowance transparent and adapted with regard to the objective of avoiding over- or under-compensation?
 - What are the criteria for classification of LFAs?
 - What are the criteria for fixing the level of Compensatory Allowances?
 - Transparency:
 - a. How applicable are the criteria across different regions and localities within the member state?
 - b. How well understood are the criteria by potential beneficiaries and Managing Authorities?
 - Over- / under-compensation:
- c. Is there evidence that payments are higher or lower than the amount necessary to achieve the desired results?

- d. Is there evidence that the desired results would be achieved whether or not support was provided?
 - e. Is there evidence that the policy would be more successful if the support had been greater?
8. What suggestions in view of a revision of the criteria for the classification of LFA and for fixing the level of Compensatory Allowance can be derived from the evaluation report? Could, for example the financial incentives be increased in areas facing particular natural or structural handicaps (*e.g.* mountainous or remote areas), or could they be lowered in areas where this is not the case?

2.2 Agri-environment

1. To what extent have natural resources been protected in terms of soil quality, as influenced by agri-environmental measures?
2. To what extent have natural resources been protected in terms of the quality of ground and surface water, as influenced by agri-environmental measures?
3. To what extent have natural resources been protected (or enhanced) in terms of the quantity of water resources, as influenced by agri-environmental measures?
4. To what extent has biodiversity (species diversity) been maintained or enhanced thanks to agri-environmental measures through the protection of flora and fauna on farmland?
5. To what extent has biodiversity been maintained or enhanced thanks to agri-environmental measures through the conservation of high nature-value farmland habitats, protection or enhancement of environmental infrastructure or the protection of wetland or aquatic habitats adjacent to agricultural land (habitat diversity)?
6. To what extent has biodiversity (genetic diversity) been maintained or enhanced thanks to agri-environmental measures through the safeguarding of endangered animal breeds or plant varieties?
7. To what extent have landscapes been maintained or enhanced by agri-environmental measures?
8. Degree of effectiveness of agri-environment measures:
 - What have the measures achieved so far, and how has this been measured?
9. Degree of efficiency of agri-environment measures:
 - Is there evidence that the support for agri-environment measures could be more targeted or restricted to priority areas (*e.g.* areas of high nature-value or areas with intensive farming) and/or to measures that contribute specifically to the implementation of EU strategies and activities in the field of environment (*e.g.* biodiversity, organic farming)?
 - What evidence is there of over- or under-compensation of recipients of agri-environmental support (*i.e.* *is there evidence that compensation has been higher or lower than the level needed to achieve the intended effect, that recipients would have taken action whether or not they had received the support, or that potential recipients would have taken action provided the support had been greater*)?

10. Is there evidence that changes in the current delivery mechanisms could improve the efficiency and effectiveness of agri-environment measures in terms of the previous question:
 - Defining and optimising environmental benefits?
 - Offering better value for money (*e.g.* using, where appropriate, tender procedures for the delivery of environmental services)?
 - Providing greater flexibility (*e.g.* contract terms shorter than 5 years)?
 - Facilitating simpler management (*e.g.* simplified premium calculations, simplified procedures for the providers of green services)?

2.3 Forestry

1. To what extent are forest resources being maintained and enhanced through the programme particularly by influencing land-use and the structure and quality of growing stock?
2. To what extent are forest resources being maintained and enhanced through the programme particularly by influencing the total carbon storage in forest stands?
3. To what extent have the assisted actions enabled forestry to contribute to the economic and social aspects of rural development by maintenance and encouragement of the productive functions on forests holdings?
4. To what extent have the assisted actions enabled forestry to contribute to the economic and social aspects of rural development by maintenance and development of employment and other socio-economic functions and conditions?
5. To what extent have the assisted actions enabled forestry to contribute to the economic and social aspects of rural development by maintenance and appropriate enhancement of protective functions of forest management?
6. Could the afforestation of agricultural land measure be re-targeted more explicitly towards environmental objectives (*e.g.* combatting climate change, enhancing biodiversity, reducing the risk or impact of natural disasters (*e.g.* flooding), or production of renewable energy)?
7. If yes, how can a reasonable balance between sometimes conflicting objectives (markets – restructuring – environment) be ensured?

2.4 Wider evaluation questions

1. Do the rules regarding good farming practice as currently defined in the rural development programmes for the agri-environment and LFA measures transparently ensure that support under agri-environmental support delivers more environmental benefits than the standard statutory requirements?

A.2.3 Rural development measures linked to the wider rural economy and rural community

1. What have the current measures relating to the wider rural economy and rural community achieved so far and how has this been measured:
 - Basic services for the rural economy and population?

- Renovation and development of villages, protection and conservation of the rural heritage?
 - Diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative sources on income?
 - Encouragement for tourism and craft activities?
 - Financial engineering?
2. Are there ways to raise the efficiency of measures under Article 33 of Reg. 1257/99?
 - Evidence that the same achievements could have been made at a lower cost.
 - Suggestions made by national/regional evaluators of ways of raising efficiency (*e.g.* changes to programme management, financing and delivery systems).
 3. What specific additional measures linked to the wider rural economy and community could be offered?
 4. Are there ways of re-orienting Rural Development measures which are not listed under Article 33 to better meet the needs of the wider rural economy and community?
 5. What new opportunities are arising for widening the diversity of employment and business activities in rural areas?
 6. How can the involvement of local groups and partnerships in rural development programmes, such as implemented through the Community Initiative LEADER, be increased? How can administrative structures be adapted to facilitate this development? In how far can benefits of trans-regional or trans-national networking and co-operation be identified?
 7. Are there ways to better exploit the synergies and complementarities between measures linked to the wider rural economy and community and other EU policies promoting growth, competitiveness, employment, and cohesion?
 8. To what extent have past and present RD measures fostered the development of energy crops related to agriculture and influenced energy demand in rural areas?

A.2.4 Simplification and programme administration

4.1 Cross-cutting evaluation questions

1. To what extent have the implementing arrangements contributed to maximising the intended effects of the programme?

4.2. Wider evaluation questions

2. Does current practice suggest that a simplification of programming in terms of types and number of programmes (*e.g.* a move to one programming, financial management, and control system for rural development, should be envisaged and how it might best be achieved)?
3. What are the advantages and disadvantages of differentiated and non-differentiated credits for the individual measures?

4. Does the analysis of current rural development programmes suggest that the programming content can be simplified (e.g. by streamlining or reducing the number of co-financed RD measures). Or is a differentiated menu of co-financed measures necessary to meet the specific needs of different rural areas?
5. Does current practice suggest ways for a simplification of eligibility conditions at the level of individual measures and for improved access to measures for beneficiaries?
6. Could an integrated approach combining several measures contribute to fulfilling the simplification objective?
7. Do current programmes give evidence of shortcomings with regard to the financial management and control system on the side both of the managing authorities and the Commission? Is there a need for adaptations identified?

A.2.5 Key general questions

5.1. Promoting the adaptation and development of rural areas (Article 33)

1. To what extent has the income of the rural population been maintained or improved?
2. To what extent have the living conditions and welfare of the rural population been maintained as a result of social and cultural activities, better amenities or by the alleviation of remoteness?
3. To what extent has employment in rural areas been maintained?
4. To what extent have the structural characteristics of the rural economy been maintained or improved?
5. To what extent has the rural environment been protected or improved?

5.2 Cross-cutting evaluation questions relating to all rural development measures

1. To what extent has the programme helped to stabilise the rural population?
2. To what extent has the programme been conducive to securing employment both on and off holdings?
3. To what extent has the programme been conducive to maintaining or improving the income level of the rural community?
4. To what extent has the programme improved the market situation for basic agricultural/forestry products?
5. To what extent has the programme been conducive to the protection and improvement of the environment?

5.3 Wider evaluation questions

1. Do existing priorities for Community rural development policy correspond to actual needs?
2. How did member states/regions decide on the allocation of the support on the different measures? Do the evaluation reports show any good practice with regard to criteria or decision procedures used by the responsible authorities in the allocation decision, in particular with respect to the necessary balance between measures?

3. Is the current menu well-adapted to the needs of rural areas as well as to the need for an efficient use of Community resources in Rural Development programmes? Are there additional measures needed in the light of emerging Community policies? Are there measures which no longer respond to current needs and which should be abandoned or redeveloped?
4. Could a widening of eligibility and scope of measures towards non-agricultural beneficiaries be a means for better achieving the objectives of rural development?

A.2.6 Common evaluation questions of the LEADER+ programmes

1. Questions regarding the implementation of the LEADER+ method

- 1.1. To what extent have the specificities of the LEADER+ method been taken into account in selecting the LAGs?
- 1.2. In which way have the specificities of the LEADER+ method been applied in other phases of programme implementation?
- 1.3. To what extent and in which manner have the specificities of the LEADER+ method been taken into account for the realisation of the operational activities of the LAGs (from elaboration to implementation)?
- 1.4. To what extent have approaches and activities supported under LEADER+ been differentiated from those under other rural development and structural programmes operated in the area?

2. Action-specific questions

Action 1: Integrated territorial rural development strategies of a pilot nature

- To what extent has LEADER+ helped improve the organisational capacity of rural communities and the participation of rural actors in the development process?
- To what extent has LEADER+ promoted and developed complementarity between actors in rural development at the local level through a *bottom-up approach and an integrated pilot strategy*?
- To what extent have the selected *priority themes* contributed to ensure a truly integrated and focused development strategy at LAG level?
- To what extent have the *pilot strategies* had an impact over the territory?

Action 2: Support for co-operation between rural territories

- To what extent has LEADER+ encouraged the transfer of information, good practices and know-how in the field of rural development through *co-operation*?
- In what measure has LEADER+ contributed to the realisation of development projects through *co-operation* between territories?
- To what extent have *co-operation* activities gone beyond the LEADER+ programme?

Action 3: Networking

- To what extent has LEADER+ encouraged the transfer of information, good practices and know-how in the field of rural development through *networking*?
 - In what measure has networking facilitated co-operation between rural territories?
3. *Questions regarding the impact of the programme on the territory as regards the overall objectives of the structural funds*
 - 3.1. To what extent has the LEADER+ programme contributed to protect the environment in the beneficiary areas?
 - 3.2. What has been the LEADER+ programme contribution in order to improve the situation of women in beneficiary areas? And the situation of young people?
 - 3.3. To what extent has LEADER+ helped explore new ways of improving socio-economic viability and the quality of life in the beneficiary rural areas?
 4. *Questions regarding the impact of the programme on the territory as regards the specific objectives of LEADER+*
 - 4.1. To what extent has LEADER+ contributed to promote and disseminate new integrated approaches to rural development through the application of its specific features, notably through *the pilot character of the strategies, co-operation and networking*?
 - 4.2. To what extent has LEADER+ contributed to a more efficient use of endogenous resources (physical, human, environmental, etc.) in rural areas?
 - 4.3. To what extent has the programme completed, influenced or reinforced mainstream rural development policy in the target area through the LEADER+ method?
 5. *Questions regarding the financing, management and evaluation of the programme*
 - 5.1. What arrangements have been made in order to bring in new LAGs and areas? Concerning the LAGs having already participated in LEADER I and/or LEADER II, how did they benefit from their experience, especially in order to maximise the added value of the specificities?
 - 5.2. To what extent have the present arrangements for management and financing set up by the authorities, the administrations and the local partners helped maximise the impact of the programme? To what extent have they hindered this impact?
 - 5.3. To what extent have the present arrangements for management and financing at all levels facilitated the implementation of the LEADER+ method and each of its specific features?
 - 5.4. What, if any, evaluation activities have been carried out at LAG level (permanent or periodical self-evaluation, specific studies, data collection for evaluation, etc.)? In which LAGs and which type of activity?

Annex 3. Framework and methodology of the Mid-term Evaluation of the 200-06 Rural Development Programme in France¹⁸

In France, the 2000-06 Rural Development Programme was implemented under the *Plan de Développement Rural National* (PDRN). The PDRN was national programme, with a strong emphasis on the role of agriculture. In addition to established measures, such as compensatory payments in less-favoured areas or various forms of support to young farmers, three major innovations were introduced under the PDRN: the integration of forestry measures; a significant increase in the importance accorded to the role of agri-environmental issues; and enforcement of the *Contrat Territorial d'Exploitation* (CTE), a scheme intended to develop the multifunctionality of agriculture (subsequently superseded in 2003 by the *Contrat d'Agriculture Durable*).

Following the mid-term evaluation of the PDRN in 2003, the following five priorities were identified:

- a) Orientation of farms towards a multifunctional and sustainable agriculture;
- b) Development and sustainable operation of forestry resources;
- c) Development of value-added and quality of agricultural and forestry products;
- d) More balanced use of national territory and reduction of economic inequalities through the promotion of employment creation; and
- e) Protection and sustainable operation of the ecological heritage.

It is interesting to note that there is no direct correspondence between specific measures and detailed objectives, as each measure could potentially impact on several objectives. The over-riding aim of the PDRN is the promotion of a sustainable rural development. To facilitate the execution of the mid-term evaluation, these priorities were then translated into a logical framework as shown in Annex Figure 1.

In order to facilitate the considerable challenges posed by the mid-term evaluation, the Ministry of Agriculture, Food, Fisheries and Rural Affairs (MAAPAR) decided to structure it in 10 thematic blocks (including Natura 2000), in addition to the synthesis block, which was dedicated to horizontal common evaluative questions (see Annex Figure 2). The work of each individual block was managed by a national steering committee. The synthesis block was managed by the *Comité national d'évaluation du RDR* (CNE), in which the chairpersons of the thematic national steering committees were members. A special case was made for the evaluation of the CTE scheme, as it did not correspond directly to an identified chapter of the EC regulation 1257/99. In the interest of coherence, it was decided that the *Instance Nationale d'Evaluation* of the CTE should be chaired by the same person as the CNE.

In addition, for the agri-environment measures (Chapter 6) and the CTE scheme it was considered that it would be constructive to carry out evaluation work at the regional level. The aim was twofold: to enrich the information obtained from the field that was to be used for the corresponding evaluation at the national level and to public enhance awareness of the evaluation of PDRN.

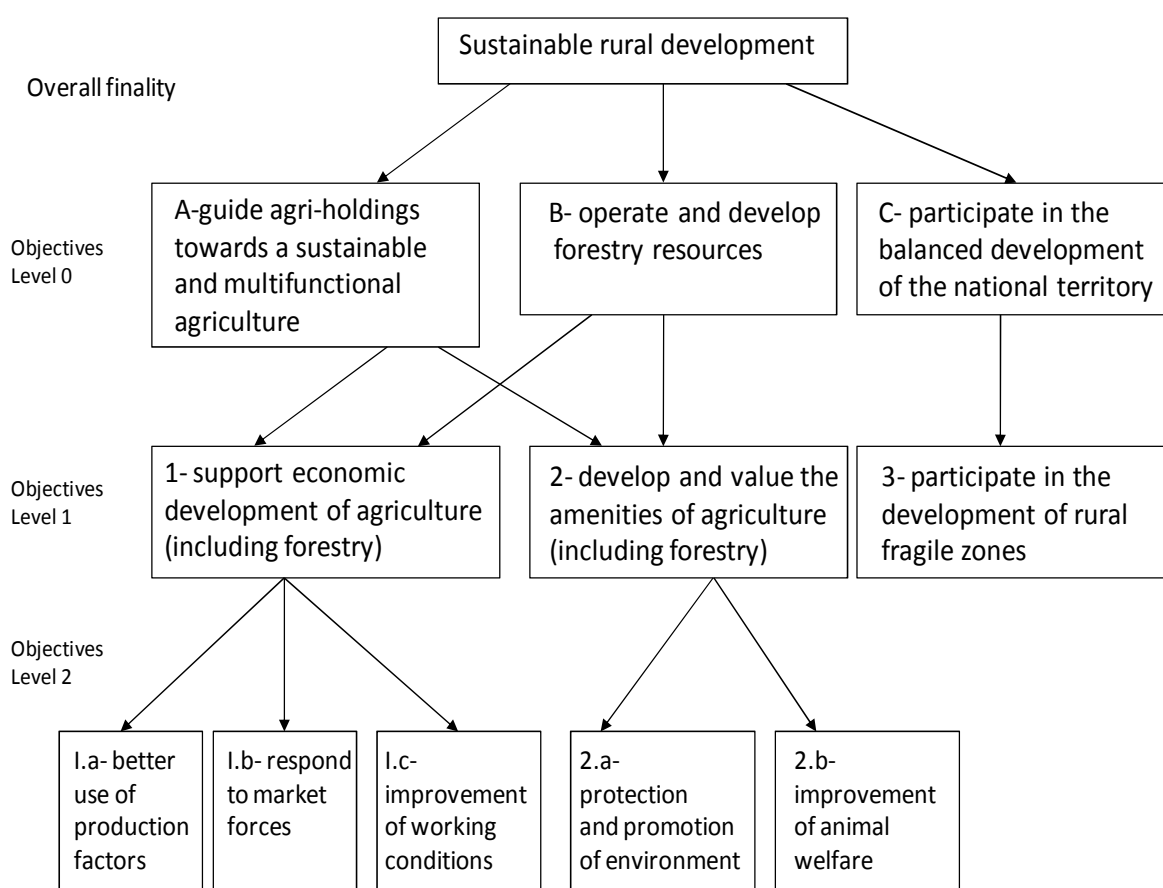
Approximately 300 persons were involved exercise (100 at national level and 200 in regions), including researchers and academics; representatives of farmer's associations and environmentalist lobby groups; members of Parliament and of local councils; experts from the payment agency (CNASEA); and staff from MAAPAR. MAAPAR officials in charge of the day-to-day management of

18. Based on Vindel (2006), "The Second Pillar of the CAP: Insights from the Mid-term Evaluation of the Rural Development Regulation in France", in OECD (2006a).

the PDRN were invited to sit in the committees but had no responsibility for exercise as a whole. Concrete evaluation work was carried out by independent experts, contracted after tenders.

The mid-term evaluation of the PDRN presented the opportunity to build a body of collective expertise, due to the high number of people involved in the project and the consequent interaction between their respective professional circles. It also produced a substantial amount of analytical work. Recommendations for the improvement of the PDRN (improvement of data-bases for monitoring and impacts measurements, re-formulation of measures and simplification of procedures, implication of local councils), as well as valuable insights for future evaluations, to be shared with other member states and with the European Commission, were also important benefits.

Annex Figure 1. Logical framework of PDRN



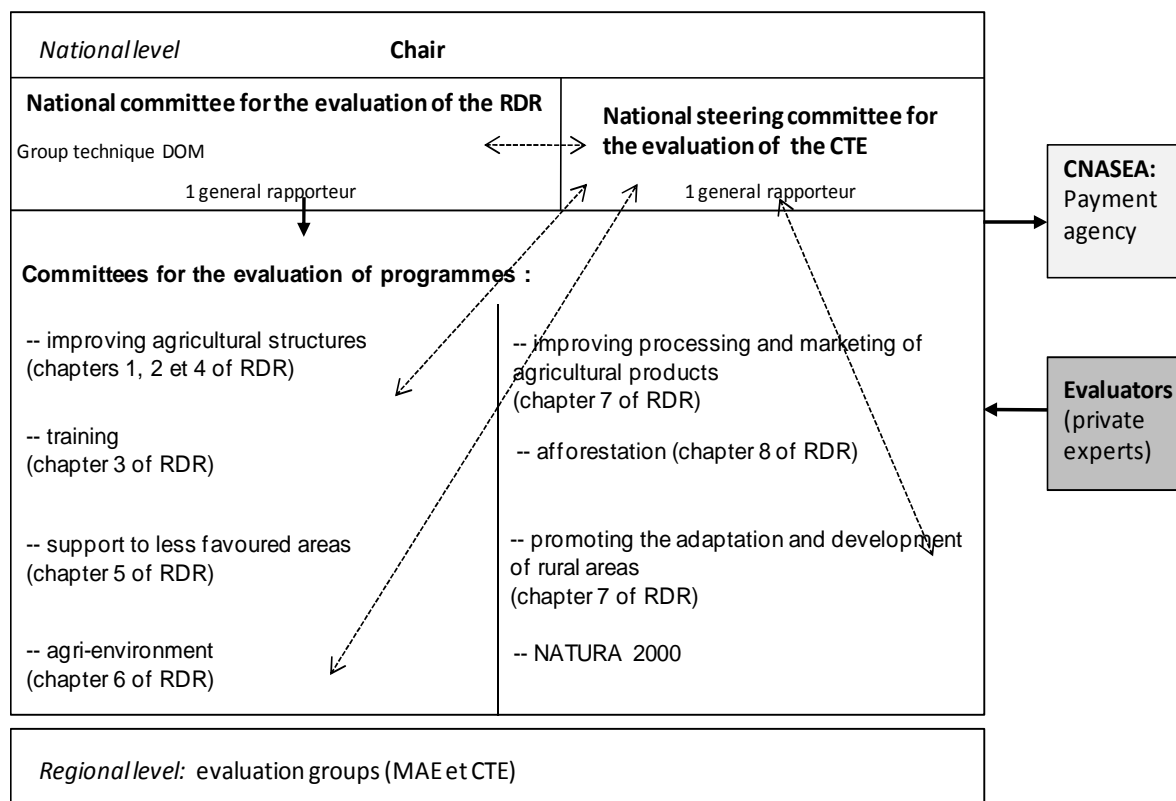
The global budget for the mid-term evaluation amounted to EUR 3.6 million, which is equivalent to slightly less than 0.03 % of the total foreseen expenditure of PDRN for the period 2000-06; 50% of this figure was dedicated to regional evaluations. Approximately, regional evaluations of agri-environmental measures and CTE lasted 6 months; thematic evaluation: 9 months; and the synthesis: 11 months.

In terms of methodology, the thematic and regional evaluations were essentially based on:

- Treatments of available statistical data, provided by national agriculture statistic systems and administrative databases (mainly CNASEA) ;
- Surveys (pooling of beneficiaries, questionnaire mailings or interviews);
- Case studies carried out in diversified territories; and
- For agri-environment and CTE, synthesis of the twenty-one regional evaluations reports, with a common grid.

The evaluators experienced several methodological difficulties, especially with administrative databases that have been conceived (and built) more as book-keeping instruments, rather than as monitoring tools. For example, it was not in all cases possible to characterise the beneficiaries of a given support measure, with all the desirable details, because the administrative database supplied included inadequate technical information.

Annex Figure 2. Organisation of the evaluation



A second source of difficulty was the absence of a baseline at the beginning of PDRN. However, this difficulty was partially overcome by using the data contained in the 2000 Agricultural Census and the 2001 Farm Practices Survey; the results of the French Farm Accounting Data Network (FADN) on farm incomes; and recourse to recent work on the demography and localisation of the French population, which allowed the experts involved in the synthesis to re-construct a socio-economical and agro-environmental referential for the common evaluative questions. In addition, although many agri-environmental measures were relatively easily described in terms of achievement (*e.g.* length of

hedges), their evaluation in terms of impact (*e.g.* protection of birds nesting in those hedges) was less easily defined.

The synthesis itself consisted of four parts:

- Analysis of the use of financial resources (inputs of PDRN) and of conditions of implementation;
- Six territorial case studies, illustrating both the main farming systems in France and the categories of the rural zones (*i.e.* peri-urban, fragile and rural zones undergoing adjustment);
- Comparisons with the implementation of EC Regulation 1257/99 in other EU member states;
- Work, based on thematic evaluation reports, on the six common cross-cutting evaluative questions, as suggested in the EC's guidelines, and on the four national evaluative questions (see below).

The PDRN, which was approved in 2000, entered into action very progressively, with some measures only being implemented from 2001 or 2002 onwards (*e.g.* Article 33 of EC Regulation 1257/99), making it impossible to provide any measurement of their impact in 2003.

A.3.1 Synthesis of evaluative questions

Cross-cutting common evaluative questions

1. To what extent has the programme influenced the population level, composition and distribution in rural areas?
2. To what extent has the programme been conducive to securing employment both on and off holdings?
3. To what extent has the programme been conducive to maintaining or improving the income level of the rural community?
4. To what extent has the programme improved the market situation for basic agricultural/forestry products (diversification/quality/competitiveness)?
5. To what extent have environmental concerns been integrated in the programme so as to improve the environmental aspects of activities (especially agricultural activities) in rural zones?
6. To what extent have implementing arrangements contributed to maximising the intended effects of the programme?

Specific evaluative questions in the French context

1. To what extent has the programme helped in guiding agricultural holdings towards a sustainable and multifunctional agriculture, a main priority of the programme?
2. To what extent has the programme helped in terms of supporting rural development, the main scope of the EU regulation?
3. Relevance of the geographical levels of programming (national plan and elements of SOPs), in comparison with other EU member states?
4. To what extent is the programme coherent with CAP first pillar measures?

Annex 4. Evaluation of the Less-favoured Areas measure in the EU

A.4.1 Background

This evaluation, which was carried out by the Institute for European Environmental Policy (IEEP) for the EC DG Agriculture, and supported by a team of experts and national partners, covers the period from the introduction of the LFA support measure in 1975 up until 2004 (IEEP, 2006). It examines the direct and indirect impacts of the measure and assesses the continued relevance of its objectives and its effectiveness in the face of evolving policy priorities. The evaluation also considers whether these objectives continue to be achieved in the most efficient way.

The LFA measure provides payments to farmers living in areas with specific natural handicaps and designated as “less favoured” to compensate for the additional costs entailed in pursuing agricultural activities in such areas. Since its introduction in 1975, the objectives of the LFA measure have evolved, reflecting a shift away from primarily production- and income-based considerations, to a recognition of the value of public goods, including the quality of environment and landscape. In general terms, the measure no longer seeks to address rural depopulation, but concern for the maintenance of a certain type of agricultural land-use and environmental protection has increased. Ensuring the continuation of agricultural land-use and preventing the abandonment of previously cultivated land is an over-arching objective of the LFA measure.

The perceived social need for the scheme arises from the fact that the competitive disadvantage of LFAs has remained over time despite the changes to the CAP that have taken place. In principle, the LFA measure could contribute to the socio-economic viability of rural communities – both directly, through the payments received by farmers, and indirectly – through the maintenance of open landscapes and the continuation of agricultural activity. However, it does not directly promote the diversification of the rural economy.

Implementation of the LFA measure varies across member states and regions, reflecting differences in regional conditions, policy priorities, and the extent to which issues are addressed by other measures. In some countries, where the handicaps facing farming are most severe and widespread, the LFA measure forms a central component of rural policy, and is seen as playing a prominent role in maintaining rural communities and supporting the continued management of the countryside. The LFA payments in 2007 amounted to around EUR 3.8 billion in the EU25.

Over the last two decades, LFA policy has been the subject of sustained criticism. In 2003, for example, a *European Court of Auditors’ Special Report* recommended a review of the existing classification of LFAs, as well as an overall evaluation of the Scheme (ECA, 2003). In 2005, in an attempt to counter these criticisms, the EC tabled proposals which paved the way for a debate on future changes in policy with a repeal of the current list of LFAs scheduled for 2010, and a review of the policy anticipated in 2008–09 (CEC, 2008).

A.4.2 Evaluation approach

The standard general evaluation approach described under heading 4.5 was applied to evaluate the LFA measure in terms of its objectives, inputs and outcomes. The approach is based on a process of logical reasoning and the conclusions were drawn primarily on empirical evidence. It is structured around a logical sequence of seventeen questions and sub-questions, which fall under six evaluation themes. These form the basis around which national and regional data are collected.

The questions are both quantitative and qualitative in nature (see below). Certain questions seek to address the whole period, while others concentrate on the most recent period of implementation since

1999, when the Rural Development Regulation (1257/1099) came into force and significant changes were made to the LFA measure in the context of Agenda 2000 CAP reform.

The first two themes examine the ways in which the principal elements of the LFA measure have been applied at member state level. The focus of Theme 1 is on the areas classified as LFAs by national or regional authorities and the eligibility conditions applying to farms within the areas designated. Theme 2 is concerned with the payments offered to eligible farms and the way in which payment levels have been determined. Theme 3 considers the effects of the payments on farm structures and incomes.

Themes 4, 5 and 6 explore issues that are central to the rationale for LFA payments and are concerned with the second-order impacts of the measure on land-use change (Theme 4), environmental quality (Theme 5) and the viability of rural communities (Theme 6). The approaches to address the environmental impacts and the maintenance of viable rural communities are largely qualitative, due to the lack of relevant data.

The overall logic model used as the framework for the analysis comprises a complete set of factors of policy design, objectives and outcomes. Aspects of policy design include farm handicap factors and outcomes (absolute/relative, farm specific/regional/national, structural, climatic, agronomic, economic, environmental, etc.).

The expected results of the *general objectives* are expressed in terms of: the extent of agricultural land-use; the quality and condition of the countryside; the sustainability of agriculture; the viability of rural communities; and the continuation and sustainability of farming in areas with environmental restrictions (AERs). Respectively, the expected results of the *specific objectives* are reflected in: the extent of agricultural land-use and the existence of sustainable farming systems; the levels of farm income in LFAs compared with non-LFAs; the extent of adherence to Good Farming Practice in LFAs/AERs; and levels of farm incomes in AERs.

The *operational objectives*, which constitute the relevant goals and determine the rules of implementation needed to fulfil the specific and general objectives at the farm level, were formulated as: to support farmers receiving an LFA compensatory allowance; provide appropriate rates of payment to compensate for handicaps and avoid over-compensation, differentiating payments based on established criteria; and require participating farms to adhere to Good Farming Practice.

This set of objectives, at each of the three levels, determines the method of implementation (*i.e.* the inputs of the measure). These include the rates of payment, the detailed eligibility criteria for areas and for farms, budgets and expenditure. The expected output of the measure is then identified by: the number of farms receiving support; the area of agricultural land entered into agreements; and the number of farms complying with Good Farming Practice.

The evidence comprises secondary data derived from a range of sources and it takes a variety of forms. Quantitative data have been derived from pan-European datasets including the Farm Accountancy Data Network (FADN), the Farm Structure Survey (FSS) and from national statistical databases containing agronomic and economic data. Pan-European data have been used mostly to answer the questions concerning the levels of compensation and the effects of the LFA measure on farm incomes and structures (*i.e.* evaluation Themes 2 and 3).

Qualitative data have been gathered through semi-structured interviews with 260 experts. Data to answer the evaluation questions were collected by national consultants in each of the 25 member states, whilst the analysis was conducted by a group of eight experts. In addition, fifteen case studies were carried out in Germany, Ireland, Spain, France, Italy, Austria and Sweden to explore different aspects of the implementation of the measure and its varying impacts at regional level. In particular, the case studies explored, in detail, the questions the impacts of the LFA measure on the environment, land-use and rural communities (evaluation Themes 4, 5 and 6).

Data collection was guided by a generic template, including a brief description of the area, and framed by questions on the impacts of the measure. Individual case studies have focused on specific questions, emphasising environmental objectives and outcomes in some areas, or a broader socio-economic strategy in others.

The pan-European data provide a relatively high level of consistency, but introduce certain limitations, such as the exclusion of small-holdings from the FADN sample (such small-holdings are potentially significant in some LFA regions). The data collected in the national data reports have come from a variety of sources and there is little uniformity in the quality and availability of data between member states. Furthermore, there is a lack of consistency in the approach to data collection employed by both member states and the individual member states over time. In addition, data are not always available for the same year for all 25 member states, which can make valid comparisons difficult.

There is also scarcity of time-series data and, in the absence of accessible historical datasets, a few individuals have been called upon to recount past events, particularly in the 10 new member states. In such cases, the evaluation answers benefited from the interviewees' expert judgement.

A.4.3 List of questions

Theme 1: Eligibility criteria

- 1a. To what extent has the current classification of areas by member state/region been based on criteria corresponding to Articles 16, 18, 19 or 20 of Council Regulation 1257/99?
- 1b. To what extent do the criteria chosen to classify areas correspond to handicaps clearly identifiable for an area?
- 1c. Is the current classification of areas an improvement in terms of identifying handicaps compared to previous classifications, and if so, why?
- 1d. To what extent are the criteria interpreted in a homogeneous way by different member states?
- 2a. To what extent have the eligibility criteria (Articles 14.2 and 15.2) currently applied at farm level by member states/regions contributed to achieving the objectives defined in Article 13 of Council Regulation 1257/1999?
- 2b. To what extent have the member states added their own objectives *via* these criteria?
- 2c. To what extent do the eligibility criteria reflect handicaps identifiable at farm level?

Theme 2: Levels of compensation

- 3a. To what extent have payment levels applied by the member states compensated for the handicaps resulting from farming in LFAs?
- 3b. In the case of areas with environmental restrictions, to what extent have payment levels compensated for income foregone and costs incurred?
- 3c. What changes have taken place in payment levels and in disadvantages (*e.g.* specific investment needs, higher operating costs) in LFAs over the period since 1975?
4. To what extent do the methods actually used by member states/regions to calculate or modulate payments reflect real disadvantages?

Theme 3: Effects on farm incomes and structures

5. What proportion of farms and proportion of hectares in the designated areas actually receive Compensatory Allowances and have these payments been provided regularly over time?
- 6a. To what extent have LFA payments received by individual farms contributed to securing farm income?
- 6b. Which other direct payments did farms receive and what was the proportion of total transfers in farm incomes?
7. To what extent did the move to payments per hectare have an impact on land purchase prices and rent prices?
8. To what extent did the level and modulation of LFA payments have an impact on farm structures in the areas concerned?

Theme 4: Impacts on land-use

9. To what extent have LFA payments helped to foster continued land-use?
10. What is the relative efficiency of the current LFA measure in ensuring continued agricultural land-use as compared to other existing EU or national/regional measures?

Theme 5: Impacts of the LFA measure on the environment

13. To what extent have LFA payments contributed to environmental protection (including landscape protection) and/or environmental degradation?
14. To what extent has the requirement to respect Good Farming Practice contributed to protecting or enhancing the environment?
15. To what extent has the LFA measure worked in synergy with other CAP measures, or been in competition with them, in relation to environmental impacts?

12 and 16.

To what extent has the implementation of the LFA measure contributed – in an efficient way – to matching the main needs identified in terms of land-use management and environmental sensitivity of the EU rural territory?

Theme 6: Impacts on the viability of rural communities

17. To what extent has continued agricultural land-use and the maintenance of the countryside, as achieved by the LFA measure, contributed to the maintenance of a viable rural community?

Annex 5. Evaluation of the Nordic Aid Scheme in northern Finland and Sweden***A.5.1 Background***

The Nordic Aid Scheme was created to support agricultural production in certain regions in the north of Finland and Sweden – the rationale for the scheme being the exceptional natural disadvantages prevailing in these areas (short sowing, growing and harvesting seasons, adverse topological conditions and low population density) – which render agricultural activity extremely difficult.

Specific objectives of the Scheme include: maintaining traditional primary production and processing naturally suited to the climatic conditions of the regions concerned; improving the structures for the production, marketing and processing of agricultural products; facilitating the disposal of the said products; and ensuring that the environment is protected and the countryside preserved.

Payments granted under the Scheme may be related to physical factors of production (*i.e.* hectares of agricultural land, or heads of animal), as well as the historical production patterns of each farm, but they must not be linked to future production or lead to an increase in either the production, or in overall support, compared to the pre-accession reference period. The Nordic Aid Scheme operates in addition to the measures for rural development under Pillar II of the CAP which also provide support to compensate for natural handicaps in the form of LFA payments.

In Finland, the Nordic Aid Scheme is comprised of payments for agriculture, horticulture and reindeer husbandry; transport aid for milk and meat; storage aid for horticultural products, wild berries and mushrooms; and aid for young farmers. In Sweden, payments are granted for fewer agricultural products than in Finland (*e.g.* cows' milk, pigs, piglets, goats, eggs and soft fruits and vegetables). Around 56% of the utilised agricultural area in Finland and 11% in Sweden is eligible for support. Most of the payments are accorded to the dairy sector (50% of total payments in Finland and 90% in Sweden).

A.5.2 Evaluation approach

The evaluation study was prepared by Agri-food Research Finland (MTT) and the Swedish Institute for Food and Agricultural Economics (SLI) for DG Agriculture and Rural Development. The study evaluates the impacts of the Scheme, as it was applied in northern Finland and Sweden over the period 1995-2005 (MTT and SLI, 2007).

The overall purpose of the evaluation is to: analyse to what the extent the objectives of the Scheme have been met; examine whether the Scheme has led to any side effects; and established whether the instruments applied under the Scheme remain appropriate and justified. A further goal is to analyse the effectiveness of the Scheme's implementation; the efficiency of the measures under the Scheme; and the relevance of the Scheme in relation to the particular situation of these regions.

The study consists of two main parts: a descriptive part and an analytical part. The descriptive part includes a full inventory of the implementation of the Scheme in northern Finland and Sweden, while the second part highlights the evaluation approach and includes the economic impact analyses to address the specified evaluation questions.

The evaluation is structured around ten evaluation questions, which fall under five broader evaluation themes (see below). The first evaluation theme addresses the maintenance of agricultural activity and the improvement of agricultural structures. With regard to this theme, three specific evaluation questions were formed: the first focuses directly on the ways in which the Scheme has succeeded in maintaining the agricultural activity that is naturally suited to Nordic conditions; the second focuses on the extent of natural disadvantage in different sub-regions and on how the differences between the regions are reflected in the amounts of payments granted; the third explores how the payments have contributed to the region's structural development and, in the long-term perspective, the maintenance of their economic activities.

The second theme considers the effects on the processing and marketing of agricultural produce. In addressing this theme, two specific evaluation questions were specified: the first focuses directly on how the Scheme has supported the processing industries that are naturally suited to specific Nordic conditions; and the second question addresses how the payments have contributed to improving the structures for marketing and processing and, over the long term, preserving processing industries.

The third theme relates to the impacts on the environment. In addressing this theme one evaluation question was set up. As the Scheme does not include targeted agri-environmental measures, the evaluation question asks: a) whether the Scheme has increased the negative environmental impacts of agriculture; and b) whether it has contributed to maintaining landscape values and rural populations. The indicators used were: landscape (mosaic and biodiversity) indicators; pollution indicators (nutrient surplus); and rural population viability indicators.

For the fourth theme, which turns to the issue of coherence and complementarities with other policies, three specific evaluation questions were posed. The first question deals with the effects of the Scheme on the internal market and competition amongst farmers and down-stream industries and sub-regions. The second question concentrates on the efficiency of the Scheme reaching its goals in relation to other policy measures. The concept of *transfer efficiency* was used as a criterion of efficiency (OECD, 2002). The last question under the theme addresses potential synergies, creation of discrepancies and competition between the CAP and rural development policies.

Within the context of the *intervention logic* of policy measures, the *general objectives*, which concern the overall structure of agricultural activities in the eligible region, were defined as: to maintain traditional primary production and processing naturally suited to the climatic conditions of the regions concerned; to improve the structures for the production, marketing and processing of agricultural products; to facilitate the distribution of these products; and to ensure that the quality of the environment is protected and the countryside preserved.

The *specific objectives* were defined as: to enhance the level and growth of rural incomes in the eligible region; to enhance the environmental sustainability of farming practices (e.g. the intensity of production and the amount of fertiliser applications). The following *result indicators* were established: changes in the investment volumes of farmers and processing industries in the eligible region; changes in the volume of sales of farmers and processing industries; changes in farmer incomes; changes in the number of hectares cultivated with environmentally friendly and sustainable methods.

The *operational objectives* were formulated as follows: to support farmers and processing industries in their applications for aid measures from the Scheme; to provide appropriate amounts of support to farmers and processing industries in accordance with the conditions of the Scheme. The *output indicators*: the number of beneficiaries from each support measure; and the amounts paid under each support measure. The *inputs*, which constitute the means by which the objectives are to be obtained, consist of: the eligibility criteria for support from the Scheme; the budget for the Scheme and its allocation between the various measures; and the administrative resources for the Scheme.

The *impact indicators*, which are used for the assessment of structural change, were defined as: changes in the number of farmers and processing industries; changes in the production patterns of farmers and processing industries; changes in the locations of farms and processing industries; changes in the area of arable land kept in active production; and changes in the area of land with high environmental value.

Both quantitative economic models and surveys were used. With the exception of the FADN data, the quantitative models are based on sub-region specific data. The quantitative analyses involve three types of economic modelling approaches: mathematical equilibrium models, econometric farm models, and use of an input-output model.

The mathematical equilibrium models were employed and simulated to assess the effects of the Scheme on: input-use, land-use, animal production, farm structures, investments and agricultural income in different regions. Three different mathematical equilibrium models were used in the analysis: a dynamic regional-sector model of Finnish agriculture (coverage: Finland); an agent-based spatial model (coverage: Sweden); and the Common Agricultural Policy Regional Impact model (CAPRI) (coverage: Sweden).

Econometric farm models were used to identify and test for: i) the spatial productivity differences in agricultural production between different sub-regions; ii) determinants of farm-land allocations; and iii) determinants of farm successions (*i.e.* factors affecting farm transfers from elderly farmers to the next generation). The results of this econometric analysis were primarily used to analyse the evaluation questions pertaining to Theme 1 (maintaining agricultural activity and improving structures).

An input-output model was used to estimate the importance and spill-over effects of agricultural production and agricultural holdings in local industries and economies. Nevertheless, despite the diverse quantitative economic models applied, the use of modelling tools of separate design, in tandem with the heterogeneity of data sources between Finland and Sweden, might have had the effect of limiting the comparability of results in the two countries.

A qualitative approach was also used to address certain questions, particularly those pertaining to Theme 2 (processing and marketing), Theme 4 (environment) and Theme 5 (administrative impacts). Information from the official data sources was complemented by data generated by a survey conducted specifically for this study. The survey utilised a postal questionnaire to elicit the opinions of different categories of stakeholders (farmers, other beneficiaries and administrators from local government). The questionnaire, which was compiled in co-operation with the EC, was conducted in such a way that all evaluation questions were addressed.

A.5.3 List of questions

Theme 1. Maintaining agricultural activity and improving structures

1. To what extent have the Nordic Aid payments – in general as well as for individual farms and different farm types – contributed to maintaining the agricultural activity naturally suited to the climatic conditions of the regions concerned?
2. To what extent do the amounts of payments fixed by the two member states reflect disadvantages in the different sub-regions; at the time when the levels are established of the levels, as well as when changing the levels (*e.g.* to specific investment needs, higher operating costs, etc.).
3. To what extent have the level of Nordic aid payments contributed to changes in farm structures in the areas concerned?

Theme 2. Effects on processing and marketing

4. To what extent have the Nordic Aid payments contributed to maintaining the processing industries naturally suited to the specific conditions of the regions concerned?
5. To what extent have the Nordic Aid payments improved the structures for the marketing and processing of agricultural products?

Theme 3. Impacts on the environment

6. To what extent have the Nordic Aid payments ensured that the environment is protected and the countryside preserved?

Theme 4. Coherence and complementarities with other policies

7. Have the Nordic Aid payments had any effects on the functioning of the internal market with respect to competition between: farmers, downstream industries and interregional trade?
8. Has the Nordic Aid proved efficient or not relative to other existing EU/national/regional support and income relevant systems (*e.g.* as regards farm incomes) and, if this is the case how and why?
9. To what extent has Nordic Aid worked in synergy with the CAP and rural development measures created discrepancies/been in competition with them?

Theme 5. Administrative impacts

10. What are the implications of the current limitations at total, regional and sector level;¹⁹ have these been followed and were they necessary to fulfil the objectives of the Nordic Aid Scheme, or do they leave room for simplifications in terms of targeting and transparency? (Have the current limitations been followed at total, regional and sector level? Have the current limitations been necessary to fulfil the objectives of the Nordic Aid Scheme? Is there room for administrative simplifications of the Nordic Aid Scheme?)

Annex 6. List of questions used in the Program Assessment Rating Tool of federal agricultural programmes in the United States***A.6.1 Programme purpose and design***

- 1.1 Is the programme purpose clear?
- 1.2 Does the programme address a specific and existing problem, interest, or need?
- 1.3 Is the programme designed so that it is not redundant or duplicative of any other Federal, state, local or private effort?
- 1.4 Is the programme design free of major flaws that would limit the programme's effectiveness or efficiency?
- 1.5 Is the programme design effectively targeted so that resources will address the programme's purpose directly and will reach intended beneficiaries?

A.6.2 Strategic planning

- 2.1 Does the programme have a limited number of specific long-term performance measures that focus on outcomes and meaningfully reflect the purpose of the programme?
- 2.2 Does the programme have ambitious targets and timeframes for its long-term measures?

19. “Current limitations” refer to the limits agreed upon while introducing the Nordic Aid scheme in 1995. These limits concern the quantity of milk produced, the number of animals/LUs and the number of hectares, as well as the amount of support in EUR, both at total level and at sub-region level per sector.

- 2.3 Does the programme have a limited number of specific annual performance measures that can demonstrate progress toward achieving the programme's long-term goals?
- 2.4 Does the programme have baselines and ambitious targets for its annual measures?
- 2.5 Do all partners (including grantees, sub-grantees, contractors, cost-sharing partners, and other government partners) commit to and work toward the annual and/or long-term goals of the programme?
- 2.6 Are independent evaluations of sufficient scope and quality conducted on a regular basis or as needed to support programme improvements and evaluate effectiveness and relevance to the problem, interest, or need?
- 2.7 Are budget requests explicitly tied to accomplishment of the annual and long-term performance goals, and are the resource needs presented in a complete and transparent manner in the programme's budget?
- 2.8 Has the programme taken meaningful steps to correct its strategic planning deficiencies?

A.6.3 Programme management

- 3.1 Does the agency regularly collect timely and credible performance information, including information from key programme partners, and use it to manage the programme and improve performance?
- 3.2 Are federal managers and programme partners (including grantees, sub-grantees, contractors, cost-sharing partners, and other government partners) held accountable for cost, schedule and performance results?
- 3.3 Are funds (federal and partners') obligated in a timely manner, spent for the intended purpose and accurately reported?
- 3.4 Does the programme have procedures (*e.g.* competitive sourcing/cost comparisons, IT improvements, appropriate incentives) to measure and achieve efficiencies and cost effectiveness in programme execution?
- 3.5 Does the programme collaborate and co-ordinate effectively with related programmes?
- 3.6 Does the programme use strong financial management practices?
- 3.7 Has the programme taken meaningful steps to address its management deficiencies?
- 3.8 Are the grants awarded based on a clear competitive process that includes a qualified assessment of merit?
- 3.9 Does the programme have supervision practices that provide sufficient knowledge of grantee activities?
- 3.10 Does the programme collect grantee performance data on an annual basis and make it available to the public in a transparent and meaningful manner?

A.6.4 Programme results and accountability

- 4.1 Has the programme demonstrated adequate progress in achieving its long-term performance goals?
- 4.2 Does the programme (including programme partners) achieve its annual performance goals?

- 4.3 Does the programme demonstrate improved efficiencies or cost effectiveness in achieving programme goals each year?
- 4.4 Does the performance of this programme compare favourably to other programmes, including government, private, etc., with similar purpose and goals?
- 4.5 Do independent evaluations of sufficient scope and quality indicate that the programme is effective and achieving results?

Annex 7. The US Program Assessment Rating Tool – Examples

A.7.1 The Value-Added Producer Grants Program

The Value-Added Producer Grants Program (VAPG) provides grants for the marketing of value-added products and farm-based renewable energy. Its ultimate goal is to enhance the economic well-being of rural areas. Under the 2002 Farm Bill, this programme was authorised for six years with an annual allocation of USD 40 million. In 2006, there were 185 beneficiaries, who received a total of USD 21.2 million. Funding for FY 2007 was USD 19.5 million.

The PART assessment undertaken in 2006 found the programme to be well-designed and managed. The overall assessment rating however was “adequate” and some performance indicators lack data. In terms of improvement, the assessment suggested actions in various areas, including continuous re-assessment of existing performance indicators, evaluation of potential new indicators and increased targeting towards emerging markets.

1. Programme purpose and design (Score: 80%)

The VAPG Program is designed to encourage producers of agricultural commodities to process their raw products into marketable goods and to stimulate the development of new uses for agricultural products. Its statutory objectives are to increase producers' revenue and to extend their customer base through the marketing of value-added agricultural products. As such, the programme discourages off-farm diversification and reduces the dependence of agricultural producers on non-farm income.

The programme provides two types of grants: one, for planning activities, such as feasibility studies or the development of business plans; and the second, for the working capital expenses associated with the marketing of value-added agricultural products (such as organic, grass-fed, etc.) and for the creation of farm-based renewable energy (*e.g.* collecting and converting methane from animal waste to generate energy). Independent producers, farmer and rancher co-operatives, agricultural producer groups, and majority-controlled producer-based business ventures are eligible. In the 2008 Farm Bill, priority is given to projects involving specialty crops (*i.e.* fruits and vegetables, tree nuts, dried fruits, and nursery crops, including floriculture). The programme covers all rural areas.

Applicants are eligible to apply for only one of these two types of grants in any one grant cycle. Planning grants are eligible for up to USD 100 000, and working capital grants for a maximum of USD 300 000. Cost over-runs are not permitted. Funds may not be used for: planning, repair, rehabilitation, acquisition, or construction of a building or facility (including a processing facility); the purchase, rental, or installation of fixed equipment; re-imburement of costs incurred before the grant; or expenses related to production of the commodity to which value will be added.

A recipient of a value-added grant must contribute an amount of non-federal funds that is at least equal to the amount of federal funds received. These matching funds could come from a loan programme such as Rural Business Enterprise Grants, and the Business and Industry Guaranteed Loan

Program. Eligibility is restricted to two grants per project (one planning and one working capital). Grants are awarded for a one-year time period and are not renewable.

Applicants for a VAPG must meet specific selection criteria. Grants are awarded according to a competitive process. In particular, independent reviewers conduct independent merit reviews, and a list of evaluation criteria is used to rate applications. Scores are then adjusted by using an accepted statistical procedure that adjusts for scoring bias. Applications are ranked based on the average, standardized score, and funds are awarded in rank order until available funds are exhausted.

No funds are allocated to cover the administrative costs of the programme. Administrative expenses for rural development programmes are provided in one lump sum, without programme specification. Grants are awarded directly to the intended beneficiaries, without first going through an intermediary.

While the VAPG is the biggest federal grant programme specifically designated as value-added agriculture, there is some overlap with some other USDA rural development programmes which also fund similar or related projects. For instance, the Renewable Energy and Energy Efficiency Program focusses specifically on energy projects and provides both loans and grants. Energy projects may also be funded through other programmes, such as the Rural Business Enterprise Grants, and the Business and Industry Guaranteed Loan Program. There are, furthermore, numerous state programmes that provide funding for value-added crops.

2. Strategic planning (Score: 75%)

The programme has six performance indicators, and reporting mechanisms are identified for each indicator. Of these six indicators, two are long-term – one focusing on an outcome, and the other focusing on efficiency – and four are annual – three focusing on an outcome, and the other one focusing on efficiency.

The long-term performance indicators are:

- *Long-term outcome*: the percentage of businesses assisted that are still operational three years after completion of the grant. This indicator was established to track the long-term viability of the business following the award. A three-year average (2001-03) has been selected – rather than a longer-term average, such as five or ten years – because the programme is still fairly new, with the first grants being awarded in 2001.
- *Long-term efficiency*: a three-year average (2001-03) of the percentage of grants that are completed within 18 months of obligation.

Targets and time-frames for the achievement of the programme's long-term objectives have been established. Following research on the sustainability of new businesses, a target has been set of 60% of assisted businesses remaining operational 3 years after completion of the project. The ultimate goal for measuring the 3-year average of the percentage of grants completed within 18 months of the obligation day is 95%.

The four annual performance indicators are:

- *Annual output*: the number of jobs created by assisted businesses. This indicator is used to *determine* if the programme is achieving its statutory objective to increase revenues to independent agricultural producers. It should be pointed out that this performance indicator of creating jobs is also included by several other rural development programmes.
- *Annual output*: maintenance – or increase – of the business revenue per project.

- *Annual output*: the expansion of customer base per project. This indicator aims to gauge if the programme is *achieving* its statutory purpose of expanding the customer base of independent agricultural producers.
- *Annual efficiency*: cost per application.

The three annual output indicators are based on the statutory objectives of the programme and support the long-term indicators of the percentage of businesses still in operation three years after the grant has been completed. The PART assessment considers that additional outcome indicators to support the long-term performance indicators would have been duplicative and redundant.

Baselines and targets for the annual indicators have been established following examination of early progress reports. The baseline year for these indicators is 2004, and the baseline for the number of jobs created is 363. Targets for future years are set according to available funds. These targets are slightly above the formula used by other rural development programmes, making the targets very ambitious for a programme whose secondary, rather than primary, purpose is to create jobs.

The baseline for “increase in revenue per project” is less than the average grant amount for the base year. The aim is to increase this target so that it exceeds the average grant amount. However, the target is considered ambitious because planning grants awarded, which usually account for about half of the grants awarded each year, do not generate an increase in revenue and do not contribute to the target. Also, maintaining the target set for “the expansion of customer base per project” annual output indicator is ambitious because the programme targets small businesses.

Finally, attainment of “the cost per application” annual efficiency performance indicator, despite the cost savings brought about by the internalisation of procedures that were formerly contracted out, is considered to be challenging in light of annual cost of living adjustments for employees and potential increases in the processing burden to the Agency, resulting from attempts to improve customer service.

The VAPG Program is not subject to regular independent evaluations. Although the Rural Development Department conducts internal reviews of the VAPG Program annually, the USDA OIG audit (which looks at internal controls for the programme, programme delivery at the state level; and reviews applicant eligibility) is the only independent review planned for the near future.

3. Programme management (Score: 90%)

This programme is administered by the Rural Business Co-operative Service (RBCS) at USDA, with grant servicing done at the state and local office level. All applications are screened at both the national and state levels. Once the initial funding selections have been made, successful candidates are screened for eligibility throughout the grant period by a system of semi-annual performance and financial reports, by conducting site visits, and by reviewing or conducting audits. Each grant recipient is visited at least once during the course of the grant period.

Grant recipients are subject to some level of audit requirements, depending on the amount of the grant and their past performance in other Federal programmes. Those who do not meet the requirements are subject to corrective action, suspension of the grant, and even termination of the grant if reports are not received on time or if performance is unsatisfactory.

There are several mechanisms that are used to identify and address management deficiencies. One of these mechanisms is completely internal to the programme staff and the other mechanisms involve non-programme staff. Federal managers and programme partners are held accountable for the cost, schedule and performance results of the programme. Full cost reports are calculated for Budget and Performance Reporting.

4. Programme results and accountability (Score: 40%)

The established baselines and targets seem to be, in general, ambitious. Some targets have not been met (*e.g.* the annual and long-term efficiency performance indicators) and grant recipients are performing below the national average. Possible explanations for this performance provided by the assessment include the funding of riskier ventures, failing to provide sufficient assistance to grantees during the difficult start-up time of their ventures, and inadequate selection procedures.

It should be pointed out that achievement – or not – of a specific target depends heavily on the type of project funded. For example, projects which carry less risk (such as ethanol production) and which can more easily obtain support in the private sector, yield high levels of business revenue (which is one of the performance indicators), thereby making it easier to meet the target. On other hand, increasing targeting of grants to emerging markets, with less emphasis on awarding grants for projects in well-developed industries would be likely to increase the difficulty in achieving the target.

A.7.2 Conservation Reserve Program

The Conservation Reserve Program (CRP) was evaluated in 2005 under the Program Assessment Rating Tool (PART) as part of the 2007 budget process. The overall rating of the assessment was “moderately effective”. The programme uses an Environmental Benefits Index (EBI) to rank producers' applications according to estimated environmental benefits and cost performance. USDA's Farm Service Agency (FSA), which administers the programme, designates both national- and state-level conservation priority areas. FSA collects performance information on all CRP contracts, including the conservation practices installed, acreage enrolled, location of land relative to national and state priority areas, and other characteristics of the land. FSA is collecting new Geographical Information System (GIS) data on all CRP contracts, with the aim of assisting modelling efforts.

In some cases the agency is not using the data to effectively manage the programme. Deficiencies exist in the FSA's technical assistance accountability system, and FSA has been slow to make progress in utilising the private sector. Also, FSA does not conduct regular independent programme evaluations. In order to improve its ability to implement the programme, modest new service fees were proposed for servicing re-enrolled and extended contracts.

1. Programme purpose and design (Score: 100%)

The CRP, which was created in 1985, is a voluntary land retirement programme. Its purpose is to assist farm owners and operators in conserving and improving soil, water, air and wildlife habitat by taking environmentally sensitive land out of agricultural production and keeping it under long-term, resource-conserving cover, such as grasses and trees. In return, CRP-eligible producers receive annual rental payments, including certain incentive payments, cost-share and technical assistance.

Once enrolled, producers enter into 10- to 15-year-contracts with the FAS. The CRP also allows highly environmentally desirable land (*e.g.* land in filter strips, riparian buffers, etc.) to be enrolled at any time without competition (continuous sign-ups). CRP addresses natural resource concerns, providing environmental and economic benefits both on and off the farm.

CRP is the largest conservation programme in the United States in terms of acres enrolled (34.8 million acres in 2008 and 36.8 million acres in 2007). There is an acreage enrolment cap of 39.2 million (to be reduced to 32 million from FY2010) and programme expenditures average out to USD 1.3 billion annually (USD 1.995 billion in 2008). Farmers and ranchers can re-enrol, or extend contracts due to expire in 2007, up until 2010.

When it was originally established, the programme targeted the retirement of highly erodible cropland from agricultural production, with the reduction of soil erosion as its primary objective.

Various other environmental concerns led to a subsequent broadening of the CRP's focus, beginning in 1990, when the programme's objectives were expanded to include improving water quality, increasing wildlife habitat and other related goals. Current legislation requires equal consideration for soil erosion, water quality, and wildlife concerns.

The CRP is designed in such a way that it is not duplicative of other Federal, state, local or private programmes and initiatives. For example, other conservation programmes, such as the Environmental Quality Incentives Program (EQIP), are "working lands" programmes in that they provide assistance to producers to install conservation measures on agricultural lands that are still in production. However, there may be overlap and duplication with other land retirement programmes, such as the Wetlands Reserve Program (WRP) and the Wildlife Habitat Incentives Program (WHIP), which pay producers to take land out of production to restore wetland ecosystems or wildlife habitat, respectively.

Applicants who wish to enrol land under the programme are required to prepare a conservation plan, and selections are made through a competitive bidding procedure. Since 1990, EBI scores have been used to prioritise multiple environmental objectives and to rank the applications according to estimated environmental benefit and cost performance. Bids with the highest EBI scores are accepted until the acreage enrolment objectives for the sign-up are met.

The EBI reflects the impact enrolment would have on various environmental measures (ground water and surface water quality, wind erosion, wildlife habitat). It includes physical characteristics of land (erodibility, soil leachability, proximity to water bodies, etc.) and indicators of locally affected populations (*e.g.* number of well-water users, etc.). Applications are ranked in terms of weighted environmental benefits.

The composition of the EBI has evolved over the years to reflect changing priorities. Since 1997, the FSA has used the following five environmental factors to assess the environmental benefits for the land offered: wildlife habitat benefits resulting from covers on contract acreage; water quality benefits from reduced erosion, run-off and leaching; on-farm benefits from reduced erosion; benefits likely to endure beyond the contract period; and air quality benefits from reduced wind erosion. The EBI also includes a cost factor, which combines the cost-share ratio, the maximum payment rate and the rental rate offered.

EBIs are calculated for every parcel of land offered. After each sign-up, the FSA determines an EBI score for each offer from producers. Cost effectiveness is achieved by the use of soil-specific productivity-based rental rates, which minimise the occurrence of excess rental payments. The FSA has also identified the time required to process contracts as an efficiency measure.

The EBI helps to ensure that the CRP's resources are targeted towards land that will provide benefits to the intended beneficiaries in a cost-effective way. In addition, the FSA negotiates Conservation Reserve Enhancement Program (CREP) agreements with state governments – such agreements target both state and local priorities, and also exert leverage on state conservation resources to provide additional benefits.

2. Strategic planning (Score: 62%)

The programme has five long-term quantitative performance indicators – four outcome, one output – to track progress towards achieving its strategic environmental goals (*i.e.* to improve the quality of soil, water, wildlife habitat and air) and one efficiency. The CRP long-term indicators focus on reducing erosion rates, reducing ground and surface water contamination, benefiting wildlife populations, and increasing the sequestration of carbon dioxide. These are:

- *Long-term outcome:* reduced phosphorus applications (measured by the number of tonnes of phosphorus not applied to crops and thereby not entering waterways); tonnes per year of carbon dioxide sequestered; increased migrating duck populations; reduced nitrogen

applications (measured by the number of tons of nitrogen no longer applied to crops and thereby not entering waterways).

- *Long-term output*: tonnes of soil conserved by participation in the programme.
- *Long-term efficiency*: average FSA agency processing time of general sign-up CRP offers (measured in FSA staff minutes spent on each offer).

These indicators have been used to set targets and time frames for CRP performance and were developed with the input of FSA's major stakeholders (*i.e.* producers, state and federal environmental agencies, environmental interest groups, etc.). It should be pointed out that data for some of these indicators are proxies and do not fully represent the indicator.

The programme has three annual performance indicators which are designed to set baselines and annual quantitative targets for monitoring the programme's progress towards achieving its objectives:

- *Increased area of riparian and grass buffers*;
- *Area of restored wetlands*;
- *Area managed under continuous CRP sign-up* (continuous CRP is targeted at conservation practices that provide extraordinary environmental benefits in areas that have been identified as important).

Targets are re-evaluated by the FSA annually. Following an evaluation undertaken in 2005, certain baselines and targets have been revised, as from FY2006. In addition, specific research studies to enhance the indicators available for setting targets and measuring progress towards meeting the targets have been funded and a new *Strategic Plan FY2005-10* has been developed. The Plan puts more emphasis on outcome-oriented goals and indicators. Nevertheless, budgeting requests are not explicitly linked to the accomplishment of the annual and long-term performance goals.

Several independent studies have examined the CRP's conservation effects on water quality, wildlife populations, carbon sequestration and rural communities. However, the FSA does not conduct independent programme evaluation on a regular basis.

The technical assistance necessary for the implementation of the CRP is provided by the Natural Resources Conservation Service (NRCS) in partnership with other conservation partners, such as state and local governments, and private organisations. However, the PART assessment has identified deficiencies in the FSA's technical assistance accountability systems, mainly due to the fact that the partnership with the private sector has not been utilised adequately.

3. Programme management (Score: 57%)

A variety of management tools and procedures for county, state, and national offices are in place to measure efficiencies and cost effectiveness for the implementation of the CRP. Offer processing time for CRP contracts is used as an indicator in evaluating efficiency in programme implementation. A similar indicator for evaluating and monitoring partnership time required in the delivery of technical assistance is currently under examination. Additional procedures include compliance checks and continuous review of CRP data.

Programme managers and some partners are held accountable for the cost, schedule of payments and performance results of the CRP. According to the assessment, funds are usually disbursed in a timely manner and requirements are in place to ensure that payments are only made to eligible persons and on eligible land. On-site spot checks on 10% of CRP contracts to verify compliance with the CRP requirements are undertaken. Producer files are also reviewed prior to annual payment issuance to

ensure that conservation practices are correctly maintained. Other procedures in place for comparing actual expenditures against intended use include the *County Operations Review of CRP*.

FSA collects performance information on all CRP contracts, including the conservation practices installed, acreage enrolled, location of land relative to national and state priority areas, and other characteristics of the land. Further, to assist modelling efforts, new GIS data on all CRP contracts have been collected.

Nevertheless, the assessment points out that, despite the efforts to improve the collection of performance data, in some cases, the FSA is not using the data to effectively manage the programme and improve its performance. For example, although FSA has information that some landowners do not properly manage the conservation cover on enrolled land, the agency has been slow to take action.

Finally, the assessment observes that financial management practices are not strong, as the FSA's process for identifying and measuring the risk of improper payments is in need of improvement. Management deficiencies are addressed in several ways, including periodic training to FSA state offices.

4. Programme results and accountability (Score: 67%)

Several independent evaluations found that CRP benefits exceeded costs and that, to a large extent, adequate progress has been made in achieving the programme's long-term objectives. Furthermore, the performance of the CRP compares favourably to other programmes with similar purposes and goals. For example, in 2004 CRP accounted for nearly 40% of the reduction in soil erosion since 1982. Also, the CRP scored better in terms of increased carbon sequestration than any other federally administered conservation programme. The CRP also had the effect of improving conditions for wildlife (the evidence shows significant increases in grassland bird populations on CRP lands as compared to cropland). To a large extent, the CRP has also achieved its annual performance goals. In particular, the annual targets of acres in the continuous CRP, buffer acres and numbers of acres of wetland restoration, were all met.

The assessment considers that demonstrable improvements in efficiencies and cost-effectiveness in achieving the programme's annual goals have been made in several areas. For example, the use of competitive bids for CRP sign-up enrolment, through the EBI-based process that awards higher points for offers that provide greater soil, water, air and wildlife quality benefits, and which offer lower rental payment requests, has reduced annual per-acre rental payments by 12% since 1996.

5. Improvement plans

The actions taken to improve the performance of the programme include: improving the FSA's technical assistance accountability systems (in FY2006, FSA established a goal of 5% of technical assistance work to be performed by the private sector); performing independent programme evaluations to identify recommendations for improving performance and efficiency; collecting performance data and drawing on it in order to improve the field-level oversight of CRP contracts.

Annex Table 1. Sample evaluation framework template in Canada

Evaluation Activity	Issues	Data sources	Data analysis methods	Frequency of analysis	Responsibility
Formative evaluation	Continuous Improvement: Are there ways to improve programme delivery from either an effectiveness or efficiency perspective?				
	Performance Measurement Systems: Is appropriate performance information being collected, captured, safeguarded and used? Is data quality assured?				
	Program Design and Implementation: Is the programme being implemented as it was designed? etc.				
	Other Issues:				
Summative evaluation	Success: Is the programme, policy or initiative effective in meeting its objectives, within budget and without unwanted outcomes?				
	Relevance: Does the programme, policy or initiative continue to be consistent with departmental and government-wide priorities, and does it realistically address an actual need?				
	Cost-effectiveness: Are the most appropriate and efficient means being used to achieve objectives, relative to alternative design and delivery approaches?				
	Other Issues:				

Source: TBS, 2005.

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