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Agricultural Policy Design and Implementation

A SYNTHESIS

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AGRICULTURAL POLICY DESIGN AND IMPLEMENTATION

A SYNTHESIS

1. The positive agenda for policy reform

Progress has been made during the last decade throughout the OECD area in adapting agricultural policies to the ever changing needs of modern society. Discussions amongst OECD members and analytical work by the Secretariat and others have supported this continuous process of policy reform. In 2002, the widely publicised OECD document *A Positive Reform Agenda* outlined ways to reap the benefits of more market orientation and open trade, while simultaneously addressing a broader range of domestic policy objectives. It was recognized that the stated objectives of agricultural policies generally fall into two categories. Either they address issues relating to equity and income distribution, or they relate to the correction of market failures. Market failures are often believed to be more frequent in agriculture than elsewhere in the economy due to agriculture's many functions as providers of both positive and negative externalities, and public goods.

The positive reform agenda emphasised that issues relating to market failures should be addressed first, and only after that should remaining income issues be tackled. Policies that address market failures also have an impact on farm incomes, sometimes positive and sometimes negative. The optimal level of intervention of each policy instrument should be considered together.

The agenda for agricultural policy reform stressed reliance on market signals to guide the allocation of resources. While emphasizing the potential welfare gains from lower trade barriers in agriculture, the positive reform agenda underscored that domestic reforms are key to successfully facing the challenge of agricultural policy reform. Trade policies are only derived policies, necessary to implement domestic policies and to achieve domestic objectives, though their international repercussions also need to be taken into account. Moreover, not all objectives have necessarily to be met by traditional agricultural policies. For example, income objectives could be met by general social and welfare policies that most OECD countries have already in place.

The positive reform agenda laid down general principles for agricultural policy design in a more market based environment. Additional steps are required to move from these general principles to the actual design and implementation of innovative policies that appropriately address the concerns of society in a globalizing world.

Consequently, recent OECD work has focused on fleshing out the characteristics of a new set of policies that would more adequately address a wide array of policy objectives. It has also delineated the role that specific agricultural policies can play to supplement environmental, trade and income policies that are in place in OECD countries. It has been stressed many times that policies that are decoupled from production are generally preferable to commodity programmes. Indeed there is now a slow but growing movement in OECD countries towards more decoupled forms of agricultural support, but the share of support that is directly linked to production is still high. The share of total support that is based on output

and payments based on the use of variable inputs (without corresponding constraints) is as high as 70% (2004-06), though it has declined from 91% in 1986-88 (OECD, 2007b).

Decoupling is certainly not the end of the story. After agricultural support has been partially, or even fully, decoupled from production, additional gains in terms of effectiveness, economic efficiency and equity can be reaped by providing support in a form that is directly targeted to the specific objective and by tailoring the amount of expenditures to the problem at hand. In a nutshell, an optimal policy response to a specific problem, which sometimes may be of a very local nature or confined to a specific portion of the population, requires an appropriate targeted intervention. Targeting contributes to avoiding the leakages that occur if support is provided through broad market interventions. Those leakages result in economy-wide inefficiencies that are spread widely across society. At the same time, targeted policies stand a better chance of being effective than output-based policies in terms of actually achieving the desired objectives. While reducing economic inefficiencies, the design and implementation of targeted policies may lead to larger and more visible implementation costs. The challenge for those designing new policies is to balance the economy-wide efficiency gains against the implementation costs associated with targeted and tailor-made policies in an environment that may be politically more difficult because of the greater visibility of some programme costs.

The following chapters attempt to summarize the lessons that can be drawn from a wide body of work undertaken by OECD since the publication of the *Positive Reform Agenda*. While the issue for some countries is how to get from decoupling to targeting, others have hardly begun to decouple their policies. Countries with predominantly coupled support to agriculture can benefit from the experience of other countries, and could already build a trajectory towards targeting into the reform process.

To improve readability, the past studies on which the individual elements of this paper are based will not be cited extensively in the text. For a complete listing of relevant material please see the bibliography provided at the end of this document.

2. The policy cycle

The discussion of policy design and implementation will be structured along the phases of the policy cycle. The framework given here is of a normative nature since we are interested in the design, not the description, of policies. This presentation is a somewhat stylized account of what, in reality, is a more continuous process of policy formulation and reformulation.

Formulation of policy objectives

A policy cycle usually starts from an identification of policy issues. This process typically involves a broad range of mechanisms, including the voice of concerned citizens and consumers, lobbying activities by stakeholder groups, political pressures and inputs from the research community and other experts. Ideally this process leads to a definition of broad policy objectives. What do we want to achieve? It is, of course, desirable that policy objectives are ultimately formulated in precise operational terms, so as to have a proper basis for assessment and to enhance accountability. The importance of deriving operational objectives, or operational policy targets, and the various forms in which targets can be formulated, are discussed below.

Evaluation of the performance of current policies

A second step in the cycle entails an assessment of the degree to which existing policies already achieve the desired objectives, and assessing their wanted and unwanted side-effects. Adequate information on the costs and benefits of existing policies is essential for this step. This stage may lead to

the conclusion that adjustments in the current policy set are required, or it may lead to the realisation that entirely new policies should be designed.

Establishing characteristics of a new policy set

The third phase in the cycle concerns the definition of operational characteristics of the new policy set. After having established what the objectives are, and possibly having realized the need for alternative policies, the question is which desirable features these new policies should have. Agricultural support that is coupled to production, for example, is known to have many undesirable side-effects. A new policy set might want to minimize the negative side effects. It is the challenge of this step in the cycle to specify as precisely as possible the characteristics of the new policies.

Implementation of new policies

The fourth phase concerns the actual implementation of alternative policies. It is one thing to outline the parameters of new policies in principle; it is quite another to actually implement them in practice. Moreover, policies are not implemented in isolation, and actual implementation needs to involve relevant stakeholders, and might lead to some adjustments in the proposed solutions.

Monitoring and evaluation

Finally, a process to monitor the achievements of the alternative policies relative to their objectives (effectiveness) and evaluating them in terms of their efficiency needs to be put in place to facilitate the continuous assessment of whether the policy train is on track or adjustments are needed. Relevant information systems should produce information that is used by policy decision makers. Ideally, the design of information systems will go hand-in-hand with the design of policies so that adequate information is generated at each step of the policy cycle.

Getting the process right – removing obstacles to change

Removing obstacles to change is central to garnering support for a reform process. Policy reform and adjustment may have adverse effects on some agricultural households and other people engaged in the sector, in particular in the short term. There could be negative effects on upstream and downstream sectors, on regional economies and on the environment. As a result and despite the fact that reform is usually motivated by a desire to increase economic welfare or redress perverse distributional and environmental effects of the old policies, governments find it difficult to make progress. However, they need not remain helpless in the face of such opposition, whether the underlying fears that are driving it are real or exaggerated. Experience has shown that reform processes that are carefully prepared, and accompanied by appropriately designed adjustment measures are more acceptable and more enduring than those that are imposed on unprepared stakeholders.

Preparing the reform by undertaking in-depth studies during the early stages of the policy cycle has been found to be a crucial factor in successful policy change in many different settings in OECD countries. This process brings several advantages; it can fuel a consultation process involving all the potential gainers and losers, it can help to anticipate the effects of the reform and by so doing identify where the adjustment pressures are likely to emerge and who is likely to be adversely affected, it can facilitate the design of adjustment measures that are well targeted, and finally, it will allow lessons to be learned and applied in modifying programmes as the process continues or in applying reform efforts in other sectors.

A striking feature of some past reforms has been the extent to which the potential of the different agents to adjust has been underestimated. There is a natural tendency for those representing vested interests to exaggerate the costs about to be imposed and the helplessness of their constituents faced with the

proposed changes. But governments also have sometimes underestimated the dynamism of the sector and its capacity to adjust. It is important therefore that, in any reform process, governments take the potential to adjust into account. They should also ensure that any obstacles that might get in the way of the sector's own adjustment efforts be removed. These might relate to regulations affecting land use, transfer or sale, tax provisions, the availability of credit, or any other legal or institutional impediment to the adjustment process.

Governments may also want to assist the reform process by putting specific adjustment measures in place. Their purpose could be to assist the exit of those who can no longer aspire to a viable future in the affected sector. Alternatively such measures could aim to improve the performance of those affected in ways that allow them to remain in agriculture either in the affected sector or by diversifying their production away from it. Such measures need to be carefully designed in order that they do not get in the way of the adjustment they are intended to facilitate. A range of measures directed at individual agents as well as more general types of assistance are available to governments.

It is important for those affected by reform to believe in the irreversibility of the changes being made and in the time-limited nature of the adjustment assistance being offered. One-off measures or multi-year schemes whose provisions are known in advance will be more credible in this respect. Governments therefore need to be clear and transparent about their intentions and, in so far as political processes allow, should hold firm to the reform and adjustment measures as announced.

One of the features of agricultural policy developments in recent years has been the movement from production or price based support to support linked to land. This has exacerbated the tendency that already existed for agricultural support to be partly capitalized in the value of assets whose supply is relatively fixed. Capitalisation has been most noticeable for a long time already in the case of tradable production quotas, but with the move towards area-based support the extent to which it applies to land is also increasing. The problems associated with the inflation of asset values are well known – those in the sector at the time the measure is introduced experience an increase in wealth and capture the benefits of the policy when they leave the sector. Those who follow find larger entry costs. In some cases the wealth embodied in the value of land or quota constitutes the retirement fund of the farmers in question. These factors may mean that the kinds of adjustment measures discussed above are not sufficient to overcome the opposition to reform.

Governments may consider granting compensation in some cases. Even more so than adjustment measures, compensation measures need to be designed with great care in order to avoid interference with the reform and adjustment process.¹ The economic rationale for compensation is weaker than for adjustment measures but the equity or political economy arguments may be powerful. In no case, however, should the costs of compensation exceed the benefits for those who gain from the planned reform. Compensation will also be, by definition, totally decoupled from production decisions, and one-off or time bound in nature. As with adjustment measures, careful study and analysis is needed to gauge the appropriate level of compensation and who should receive it. Ideally this could be best done if payments were ex-post in nature, but realistically this will not be the case. Governments therefore need to be careful that they do not over-estimate the need for compensation and that they correctly identify the appropriate recipients. Used judiciously, compensation may be an important part of the reform tool kit, reducing opposition to the proposed reforms, and improving outcomes in terms of equity, while still allowing welfare gains to be reaped from the process.

1. The term 'compensation' has different meanings in different legal systems. In this paper, compensation policies are those that provide a monetary transfer to a targeted group that has been made worse off as a result of a policy reform. See also OECD (2006h).

3. What are the policy objectives?

Historically the objectives of agricultural policies have evolved with society's attitude towards agriculture. The objective of producing adequate amounts of food at reasonable prices to feed the growing urban population in the industrialising society is of less relevance now in OECD countries. Today the stated objectives of agricultural policies in OECD countries are numerous, many of which have not changed over time. These include:

Objectives related to farmers

- Achieve an acceptable level of farm income (or income for farm families)
- Reduce income variability (or downward fluctuations of income)
- Improve competitiveness of the agricultural sector

Objectives related to consumers

- Assure provision of safe and high quality food (at fair prices)
- Assure food security
- Contribute to energy security

Objectives related to society at large

- Protect the natural environment and biodiversity
- Preserve cultural landscapes
- Contribute to the viability of rural areas

Making the objectives that underlie a policy set explicit and quantifiable is a first and inevitable step towards policy design. But goals are rarely expressed in precise, quantifiable terms. Even the relatively straightforward objective to “achieve an acceptable level of farm household income” is imprecise. A better approach might be to define it as: “achieve within a given number of years average farm household income levels as least as high as the average in the economy”. This definition provides a point of reference (average economy-wide income) and it is time bound. This definition may not be sufficiently precise. In most cases, not only is a given level of average income for all farm households at stake, but also the achievement of a minimum, or acceptable, level at the low end of the income distribution among farm households. Such a reformulation of objectives would allow for a better monitoring and evaluation of policies.

An even greater vagueness surrounds the other policy objectives listed above. Clearly, more specific and operational objectives and criteria have to be derived and explicitly formulated in order to establish a clear link between objectives and instruments.

4. Do current policies meet objectives?

Farm income objectives are most obviously and directly related to farmers. The level and variability of farm income has long been a central concern of agricultural policies. The traditional policy instrument is market price support: high domestic prices sustained through border measures. The income transfer efficiency of these policies is low. OECD (2003a) estimates that of each extra dollar (or euro) transferred through market price support, the amount that arrives at the farm in the form of increased income can be as low as 25 cents. The stimulus to output, and hence input demand, created through market price support and

deficiency payments means that much of the increase in receipts is paid to input suppliers or capitalised into land values.

By stimulating domestic production such a policy has well known distortionary effects on international markets. In addition to affecting the volumes of international trade, market price support may also increase international price volatility. While this policy may be quite successful in stabilizing domestic prices and revenues, the domestic markets are essentially cut off from broader price mechanisms to accommodate adjustments. Instead the only “safety valve” is the international market which has to bear larger swings in prices.

Recognizing the negative spill-overs from market price support, several OECD members have moved towards policies that aim at ‘decoupling’ support from production. These include direct payments in the United States, PROCAMPO in Mexico and successive reforms in the European Union that culminated in the single payment scheme. The idea that a move towards decoupled policies can limit the distortionary influence of support on production and trade, while not necessarily reducing farm incomes, greatly facilitated the negotiations towards a successful agreement on agriculture under the GATT Uruguay Round.

While decoupling support reduces the impact on production and trade it is never completely neutral, as shown by OECD work that measured empirically the impact of alternative forms of policies on production. Even a lump-sum income payment to farm households, with no requirements on production, will alter the incentive structure in such a way that it becomes more profitable for some to stay in the sector rather than to leave. It therefore makes sense to speak about relative degrees of decoupling, and research by the OECD and others shows that agricultural policy instruments can be ranked according to the degree of decoupling. They can also be ranked according to their efficiency in attaining the income objective.

Of the policy sets examined, payments based on area are generally the least production and trade distorting, especially if payments are based on historical references and if few or no conditions are imposed on the use of eligible land. Payments based on current output and market price support are very similar in their production effects and are always more trade distorting than land based payments. The most distortive form of support is payments (or revenue foregone) based on variable inputs (without corresponding constraints), such as fertilizer, although they account for a small share of overall support in the OECD area.

The more decoupled the support the higher the income transfer efficiency. In other words, the more ‘unrequited’ the transfer, the higher the percentage that actually ends up in the farm household. While all forms of agricultural support can increase the value of farm assets, due to the phenomenon known as capitalisation, the effect is usually stronger in the case of area based payments that tend to increase land rents. Capitalization of payments into land rents therefore has an impact on the farm household’s wealth, when the household is also the owner of the land, next to its impact on current income.

Improvement of competitiveness is another objective that is directly related to farmers. This term is often ill-defined (or not defined at all). Market price support policies typically create a false sense of competitiveness by raising domestic prices to such levels that even inefficient producers are able to earn sufficient market receipts to survive. True “competitiveness” is always a relative concept, and a clear distinction has to be drawn between competitiveness of individual firms *vis-à-vis* each other in the same sector; competitiveness of sectors/branches *vis-à-vis* each other in the same economy (closely related to the idea of comparative advantage) and competitiveness of sectors/branches in an international context. The determinants of competitiveness are multi-faceted and include all the factors that determine long-term viability and market positions of firms, supply chains, and sectors in the economy. Policy makers might be interested in competitiveness in the context of structural adjustments and policy reforms. Which activities

have a positive self-sustained long-term prospect and which activities might need some transitory assistance, including assistance to exit current activities?

Most often policies under the heading of competitiveness aim at productivity improvement of farms and sectors. Long standing government involvement is justified by the public good character of knowledge and information, which would lead to under-provision if produced privately: technology development, agricultural education and extension are examples. However, the share of private R&D in the agri-food sector has markedly increased throughout the world, indicating a changing boundary between public and private roles. Aiming at broad-based productivity improvements in the agricultural sector may be inconsistent with programmes that provide support to farming to maintain it where it might not occur otherwise, in the pursuit of regional or environmental objectives.

Objectives related to consumers, as listed above, generally concern the volume and quality of the products produced by the agricultural sector. It can be said that agricultural policies in the OECD area have been quite successful in assuring the provision of abundant, safe and high quality food, but generally at prices above prevailing world market prices. The average nominal protection coefficient across the OECD was still 1.25 in 2004-2006, indicating that domestic prices were on average one quarter higher than world prices (OECD, 2007b) – and with considerable variation across countries and commodities.

Objectives related to society at large attempt to address a wide and diverse range of externalities, positive or negative, associated with agricultural production. In more recent years there has been a lively discussion on multifunctionality of agriculture, which basically revolves around the notion that agriculture provides not only food and fibre, but also so called non-commodity outputs, which may be valued by society and which would perhaps be produced in suboptimal amounts in the absence of agricultural production. In other words, some non-commodity outputs are possibly produced jointly with food and fibre, and such jointness has consequences for the optimal policy design. Since markets for some of these non-commodity outputs, such as cultural landscape, are not well developed or non-existent, the policy discussion centres around the question of which policy instruments would be best to stimulate the production of non-commodity outputs for which the social returns exceed the private returns. Addressing the negative impacts of agriculture on the environment and the environmental benefits of agriculture have been growing concerns of all OECD governments (OECD, 1997).

To address problems associated with such market failures, price support is usually a second best instrument. Yet, of all the support afforded to the agricultural sector in the OECD in 2004-06, 54% was provided through market price support (OECD, 2007b). That is through all sorts of measures that lead to an elevation of domestic commodity prices above their opportunity cost, and which will typically be sustained through border measures that restrict international trade. Such measures will stimulate domestic commodity production, but such policies may also lead to negative externalities while there is no certainty that the desired amount of non-commodity output will be reached as well.

Concerning environmental objectives, which have only relatively recently been included in the agricultural policies in many OECD countries, it is not at all easy to establish a clear quantifiable assessment of the effects of agricultural policies on environmental quality (OECD, 2005e, 2006a). To date information systems are insufficiently developed to allow a comprehensive link between agricultural policy instruments and environmental effects, although a wide variety of case studies and quantitative work is underway (OECD, 2005d). This makes it difficult at this stage to assess whether agricultural and agri-environmental policies are meeting their objectives.

As regards other objectives such as cultural landscape and biodiversity, the situation is also difficult. Obviously it is much harder to develop operational criteria to assess the impact of policies on the quality of the landscape than it is to measure farm incomes. The assessment of the impact of policies on biodiversity

could be helped by the recent development of farmland bird and semi-natural habitat indicators although many of the effects are local or regional. Indirect indicators are commonly used. For example, a measure of land use change – expressed as a land-use/habitat matrix – has the potential to be taken as a proxy for the effects on biodiversity. A cleverly chosen combination of indirect indicators might yield insights into the original objective (OECD, 2008).

Rural development assumes a prominent place in the agricultural policy aims of OECD countries. Agriculture is the dominant land user in rural areas, but rarely the dominant source of economic activity. Consequently, the linkages between agriculture and rural development are not that clear. Two simple statistics illustrate that “rural” is not synonymous with “agriculture”. On average, less than 10% of the rural workforce across the OECD area is employed in agriculture (OECD, 2006b). In addition, about 50% of the agri-food workforce is employed in predominantly urban regions, taking upstream and downstream employment into account. On the other hand, the creation of attractive countryside associated with agriculture can foster an influx of city dwellers in search of a rural residential lifestyle, and this can indirectly stimulate employment and incomes in rural areas.

5. What are the characteristics of a new policy set?

Moving from traditional agricultural policies that are based on market interventions towards policies that are more directly addressing specific economic, social and environmental objectives is a big step. What are the operational characteristics of the new policy set? We discuss policies that are decoupled, targeted, rely on market forces whenever possible and tap into the potential for generic, non-agricultural, policies.

Decoupling: what does it mean in practice?

Decoupling support from current production or prices reduces the interference with agricultural markets (Box 1). It has a particular relevance in cases where past policies provided support directly coupled to production, in the form of market price support or output and input payments, and where this support is now being decoupled from production, in order to reduce market distortions and improve income transfer efficiency. It is important to keep this role of decoupling in the process of policy evolution in mind: current forms of more decoupled support can play an important role in the process of reforming agricultural support policies. In the perspective of policy evolution, more decoupled support may carry an element of adjustment assistance. In this case the amount and duration of this type of support should be commensurate, in volume and in duration, to achieve the objective.

Decoupling itself is not sufficient to meet the diversity of policy objectives, but it represents a relatively undistortive way of supporting farmers' incomes. If decoupling is undertaken in an evolutionary process of policy reform, decoupled payments can be seen as providing compensation and adjustment assistance. A linkage between income objectives, or adjustment and compensation, and other objectives of agricultural policy can be attempted by making receipt of decoupled income payments conditional on meeting certain conditions, for example restrictions relating to the environment or animal welfare. These so-called cross-compliance conditions are discussed in more detail below.

Even though effective decoupling can make an important contribution to reducing distortions and improving efficiency, it should also be clear that all agricultural support programmes have some impact on production and trade. The exact implementation of direct payments differs between countries and their effects vary accordingly. Both implementation criteria and program size (amount of payments) determine the size and composition of production impacts. OECD work on decoupling has investigated effects on current and future production that are associated with decoupled support. The size of the payment clearly matters, as the first dollar will have a greater effect than a dollar added to an already high level of support.

Also, a support policy that is highly decoupled at the margin may nonetheless have a significant total impact on production if the overall level of support is high.

In order to implement a decoupled payment scheme one needs criteria to determine who is entitled to receive the payment, and to determine the size of the payment to meet some objective. Entitlement has usually been based on historical receipts, in which case the previous patterns of distribution are preserved. If the farmer received support in the past through market price support, output subsidies or area payments, this support can be converted into an equivalent sum in decoupled form. Usually these new payments are linked to the farm's assets. Such re-instrumentation from market price support to area based payments took place in the EU as part of the 1992 McSharry reforms, and also in the USA, in Mexico, in Switzerland and in Norway. By tying payments to historical farm assets, the amounts given are essentially fixed.² If, however, commodity production is required to receive the historically fixed land-based payments the degree of decoupling obviously becomes less. If land-based payments are not determined on a historical basis, but are instead based on current land use, then the degree of coupling is greater. The relative price of agricultural land can be changed and will tend to encourage expansion of land use. One problem associated with all area based payments is that they may discourage entry and exit from the sector, and hence represent a limiting factor for sectoral dynamics. Payments will tend to be capitalized into existing farm assets and this makes it both more costly for new entrants to acquire agricultural assets and discourages exit from the sector. There are, however, ways to slacken the link between payments and land, and thereby reducing the degree to which payments are capitalized in land values (OECD, 2006d, 2006f).

In the European Union payment entitlements are tradable independently from land, but to activate payments, eligible land must be associated with the payment entitlements. This eligible land can be rented, leased or bought. There are limits to tradability of entitlements across countries and even within some EU member countries tradability across regions is restricted. The EU-wide implementation of these reforms was completed by 2007, and it is too early to empirically examine the effects on asset mobility, land rents and output responses. When based on historical entitlements, decoupling can maintain any inequities associated with production linked support, since the distributional patterns of support are preserved. This form of support will tend to reward larger farms more than smaller ones.

Box 1. The OECD definition of decoupling

OECD has adopted an ex post concept of decoupling that relies on empirical measurement of production and trade impacts to classify policies according to their degree of decoupling. This contrasts with the legal definition used in the WTO which relates to the implementation criteria of policies.

The strictest definition of fully decoupled measures requires that the equilibrium level of production (or trade) be the same as without the measure, and, in addition, that any adjustments due to an outside shock should also be the same as if the measure did not exist (OECD, 2001b).

A less restrictive definition of decoupling (effectively fully decoupled) requires the actual levels of production (or trade) not to differ as a result of the measure.

Finally, a related notion is referred to as degree of decoupling, which is an indicator that measures the production and trade impact of a given policy relative to the impact of market price support. OECD (2006g) elaborates on these concepts and summarizes the lessons learnt from the work on decoupling.

2. This is not true of the counter-cyclical payments that were introduced in the US in 2002.

Cross compliance

More decoupled policies have smaller production effects than direct market interventions and enhance the market orientation of the farming sector. But decoupling does not as such address problems related to societal concerns and market failures with regard to the provision of environmental goods.

Cross-compliance requirements have been added to support payment schemes in many OECD countries (EU member states, the US, Norway, and Switzerland) with different implementation characteristics. These requirements make receipt of support conditional on satisfying other criteria, such as respecting certain environmental conditions, or respecting certain standards of animal welfare. For a specific implementation of cross-compliance in the European Union, see Box 2.

Cross compliance is only an option where farmers receive support payments. All countries have more or less stringent mechanisms to enforce environmental or other legislation according to their situations and preferences. To date, there is little empirical evidence allowing the different approaches to be compared.³ Nevertheless, the effectiveness of a policy configuration relating income support and selected statutory environmental or other requirements depends crucially on the incentive structure that it creates. Cross compliance attached to direct payments can improve some outcomes at low incremental transaction cost but it is a challenge to fully align the income environmental or other outcomes. Also, where uniform requirements are imposed on all farmers, this ignores the fact that individual farmers have different compliance costs. On the other hand, if cross-compliance conditions take farm heterogeneity into account, administrative and monitoring costs will mount (OECD, 2005b). Striking the right balance between locally specific requirements and generally applicable conditions is a difficult task.

Agri-environmental schemes, which pay farmers for the provision of environmental goods and services beyond what they are expected to provide under basic standards and which are targeted to specific problems and regions continue to co-exist in OECD member countries that also use cross—compliance. If outcomes in the area of environmental performance and animal welfare etc. are sought that go beyond statutory requirements, measures are needed that are targeted to those goods and services and to specific local circumstances.

Box 2. Cross-compliance in the European Union

The EU approach to cross-compliance includes partial or full loss of payments if the farmer fails to comply with mandatory standards stemming from existing legislation and the maintenance of good agricultural and environmental conditions. Cross-compliance creates a link between several separate policies, amongst them income support and selected statutory standards or requirements. These relate to environment, animal and plant health, public health and animal welfare and identification and registration of animals and are enshrined in existing laws. By introducing reduction of payments due to non-compliance the effectiveness of enforcement of existing environmental laws could be expected to increase.

Primary legal enforcement of environmental legislation is done through European Union Member States' sanctioning systems. Cross compliance is assisting in reinforcing the respect for the basic requirements and standards, avoiding support to farmers that do not abide by these rules.

The EU uses a system in which both statutory requirements and voluntary provision are complementary. Farmers receiving agri-environment payments for voluntary commitments must in any case respect the mandatory standards. In that sense, the European Union cross compliance system already provides the baseline for calculation of payments for agri-environmental measures. EU Member States and Regional Authorities define the cross-compliance standards on the basis of the EU framework adapting them to local conditions in order to deal with heterogeneity in local circumstances.

Cross-compliance neither directly pursues an income support objective nor is it the primary mechanism for enforcing environmental legislation. Rather, cross compliance is a tool linking payment schemes to the respect of a wide array of mandatory requirements and fostering adherence to them.

3. Work is continuing on a framework to evaluate cross-compliance approaches.

Targeting: what does it mean in practice?

Decoupled policies in OECD countries have successfully redirected some agricultural policies towards more economically efficient ways to deliver income support to farmers, but decoupling is in itself not sufficient to achieve all the policy objectives that are mentioned above. Reconnecting agricultural policies with these objectives is the major task that lies ahead for policy makers. The concept of targeting attempts to address more effectively and more efficiently the market failures and income problems that sometimes prevail in agriculture and that feature among the main *raison d'être* for agricultural policies.

Targeting policies towards precise aims and tailoring measures to precise needs is expected to achieve a better result with lower transfers than broad-based policies. A targeted policy is more effective in achieving its objectives, and moreover only provides transfers in pursuit of specific objectives to specific spatially defined areas and specific (farm) population groups. In addition, the rate and the duration of support is commensurate with the cost of providing the expected outcomes (OECD, 2007c).

To understand the concept of targeting, it is useful to distinguish four basic concepts. **Strategic objectives** are usually formulated in general terms, such as the list provided above. To be meaningful for policy making, these need to be translated into **operational objectives** that define specific outcomes. The operational objective specifies in precise and quantifiable terms what it is that should be achieved by the policy intervention, as already pointed out by Tinbergen (1967). Third, associated with operational objectives is a point of intervention, or a **set of target variables**. Those are the direct indicators which policy **instruments** address. Instruments are those economic variables that can be manipulated by policy makers, and may include taxes, subsidies, regulations, payments for the delivery of a service or even direct provision of services and products through government. Policy instruments provide positive and negative incentives that are intended to affect behaviour of producers and consumers in such ways that the target variables are moving in the desired direction.

In many cases the chosen policy instrument has a one-to-one relation with the desired outcome, such as the many transfers to compensate for temporary income losses (Box 2). In other cases, the policy instrument acts only indirectly to achieve the outcome. Structural adjustment programmes for example would, where possible, target specific impediments to adjustment rather than outcomes (OECD, 1994). Indirect targeting also happens when the outcome is difficult to measure or when there is uncertainty about the precise nature of the relationship between behavioural changes that the policy wants to bring about and the desired outcome.

Indirect targeting is especially found in the field of agri-environmental policies, where the target is often defined as a technical parameter (inputs, outputs, abatement technologies) or as a production method (adoption of no-till cultivation, integrated pest management, or timing of pesticides and fertilizer application) which can be influenced by a number of instruments.⁴ Examples include attempts to improve water quality, which could be measured precisely in terms of its chemical composition, including the level of nitrate. Here the operational objective is to 'reduce water pollution', and the policy intervention aims at an indirect target, namely the level of fertilizer and pesticide inputs used, by using a variety of instruments such as direct regulation and taxes. Hence, while improved water quality is the ultimate objective, it is

4. Using indirect targets is not specific to agricultural and agri-environmental policies. For example, OECD countries' educational policies are often formulated in terms of public expenditures towards education, rather than in terms of the human capital generated. Likewise, innovation is often measured in terms of R&D expenditures – an input into the process of knowledge generation – rather than in terms of new products and processes generated.

Table 1. Illustrative examples of objectives and targets

Strategic objectives	Operational objectives defining specific outcomes	Examples of possible target variables (point of intervention)	Associated instruments
Ensure adequate income levels to farm households	Minimum income level for all farm households	Minimum income level for all farm households	Welfare payment per farm household (= minimum income - actual income)
Structural adjustment	Exit of economically non-viable farms	Number of operators of non-viable farms leaving the sector	One-off payment for non-viable farmers to exit the sector
Competitiveness	Improve productivity	Increase crop yield by y%	Funding for public research and extension
Improving environmental performance	Objective 1: Reduction of nitrates in water by x%	Reduction of Y% of nitrogen application on crops	Taxation of fertilizers and pesticides.
		Elimination of nitrogen surplus for each farm in sensitive areas	Regional payment for the elimination of nitrogen surplus
		Practices to reduce nutrient run-off into water: - No application/spreading of fertilisers on frozen soil - Grass strips around fields close to rivers - Application of fertilisers on naked soil to be followed by ploughing	Payment for applying the practices defined in the target
		Requirements to reduce manure spreading - Minimum area needed to spread manure - Requirements on storage facilities - Regulation on time and frequency of manure spreading	Payment for implementing the requirements defined in the target
	Objective 2. Restoration of natural habitat	Numbers of hectares habitat for species Y	Payment per ha of restored habitat
		Length of hedges planted Reduction of pesticide application	Payment per km of hedges planted Payment per ha for reducing pesticide application
Cultural heritage	Maintain X number of windmills	Maintain X number of windmills	Offer maintenance contract with subsidy element to windmill owner/operators

Source: adapted from OECD AGR/CA/APM(2005)/REV2.

sometimes more practical to address the variable input use on the farm in order to reduce the application of nitrogen and the run off of nitrates. To achieve the objective the most appropriate point of intervention is the farm management practice, which becomes the target of the policy intervention.

There are many reasons for this recourse to indirect targets: time lags between the change in input use and the ultimate effect on the environment; the impossibility of tracing the individual farmer's effort to the improvement of the local, national and international environment (a public good and an externality); and uncertainties about the precise technical and ecological relations that determine environmental quality. The use of proxies as targets for environmental objectives, such as nitrogen fertilizer application instead of level of nitrate in the water, is a common practice, but the relationship between proxies and environmental quality is often not straightforward and depends on the exact agronomic and ecological circumstances.

Table 1 illustrates the translation of different objectives into outcomes, targets and associated instruments, including an example of options for targeting a broadly specified environmental objective.

Box 3. Direct targeting: "Exceptional circumstances" income support in Australia

The programme provides short-term assistance to long-term viable farmers and small business operators to manage rare and severe events, typically climatic events such as drought, that are beyond the scope of normal risk management practices. To qualify as exceptional circumstances, the event must be rare (it must not have occurred more than once on average in every 20 to 25 years; it must result in a severe downturn in farm income over a prolonged period of time; and it must be outside the scope of farmers' normal risk management strategies (DAFF, 2007).

Assistance is provided to eligible farmers and agriculturally-dependant small business operators. Two avenues of support are used. Business support is provided in the form of interest rate subsidies. Applicants must demonstrate that under normal circumstances they contribute at least 75% of their labour to the enterprise; derive at least 50% of income from the enterprise; and have been a farmer or small business operator for at least two years. Eligibility is also subject to the applicant having disposed of all non-essential business assets and meeting a non-business assets tests. Income support is also available, at rates equivalent to mainstream social security payments. Eligibility is subject to an income and assets test. Expenditures for this programme account for less than 0.6% of total support to Australian farmers.

The programme has clear targeted features as conditions for eligibility are very narrowly defined. In addition, asset values (and income in the case of the welfare component) are taken into account to determine eligibility. While some elements of the target, such as the degree to which income has fallen or long-term farm viability, are not defined in precise quantitative terms, there are guidelines and legislation governing the processing of applications to ensure access to payments is consistent.

The definition of what constitutes an exceptional circumstances event is a crucial factor to evaluate the degree of targeting of an exceptional circumstances relief programme such as the one used in Australia. Exceptional Circumstances arrangements in Australia are conditional on an administrative declaration that the area has been affected by an exceptional circumstances event.

Some disasters are obvious, but in the absence of clear criteria on what constitutes a disaster, large discretion is granted in many countries to the authorities that take the decision.

How to define target variables?

A decade ago, OECD ministers included targeting as one of the desirable operational characteristics of policies, declaring that policies should be targeted to specific outcomes and as much as possible decoupled (OECD, 1998). Subsequent work undertaken to refine and clarify these concepts demonstrated that in order to minimise unintended transfers and negative spill-over effects the targeted variables have to be defined with respect to a number of dimensions (OECD, 2007c). After that, the appropriate policy instruments can be chosen. Concerning the delimitation of targeted variables, the following dimensions need to be specified:

- a precise measurable definition of the policy objective to be targeted and the units in which the target is measured: for example in monetary units (cost, benefits or the difference between cost and benefits) in non-monetary units (number of hectares of wetlands), or as ratios (greenhouse gas emissions per square meter or emissions per kg of output).
- a definition of the spatial/geographic area: market failures that justify a policy intervention are often locally or regionally confined. Examples of regional interventions are less-favoured areas, mountainous areas, remote islands, or areas with a special environmental interest (e.g. Natura 2000 sites in the European Union) or regions with a specific environmental problem (e.g. nitrogen surplus).
- a definition of eligibility characteristics: who is eligible to receive payments, and on which criteria? Agricultural policies most often apply to individual farmers but some measures address groups of farmers, farmers' representatives or co-operatives. Some measures are restricted to individuals with specific characteristics such as incomes below a threshold, farmers who incurred specific losses to be compensated (natural disasters), young farmers (installation scheme), older farmers (early retirement scheme), small farms or commercial farms.

As a general rule, targets should be as close to the desired outcomes as possible, given the limits determined by monitoring requirements, technical knowledge and administrative feasibility. The more remote the target is from the desired objective, the more opportunities exist for unintended side-effects and leakages of transfers, and the less likely it is to be achieved. If the objective is to preserve endangered plant species, whenever possible pay for them directly. If implementation and monitoring are too complex and costly, pay for a farming practice that will generate or preserve the desired plant species.

How to choose instruments?

Agricultural policy instruments are habitually equated with money transfers, but obviously more instruments are at the policy makers' disposal, such as taxes (a negative transfer), regulation and a variety of "facilitating" measures. Which of those instruments (or mix) is the most efficient to meet objectives depends crucially on the ability to adjust the mix of inputs and outputs. While taxes and subsidies address prices (of factors of production or of output), regulation addresses quantities (of factors of production or of output). In general, the regulation of quantities may lead to enormous price reactions if their supply is very inelastic. Conversely, large quantity reactions can be expected if a tax is imposed on a commodity with highly elastic supply.

As a general rule, an optimally chosen instrument would equate the marginal social benefits and marginal social costs. Estimating benefits to society in the absence of well-functioning markets is of course a major difficulty, and consequently most targeted policy schemes concentrate on the costs of provision which are usually easier to assess.

Targeting calls for fine-tuning (tailoring) of instruments. Designing policies that are directed towards narrowly defined targets implies that mechanisms have to be found to deal with the inherent heterogeneity in circumstances. The costs and benefits of adjusting farm practices to comply with society's aims differ across farmers depending on agronomic and economic conditions (Box 4). Heterogeneity in soil quality, for example, leads to different needs concerning fertilizer use and different flows of nutrient run-off. An optimally targeted set of policies would take these heterogeneities into account, such that at the margin the cost of compliance for each farmer is equal to the marginal social benefits. A first-best instrument would presumably be a differentiated fertilizer tax that takes soil heterogeneity and environmental sensitivity into account, but this is clearly not a feasible option. A practical and feasible approach may be to differentiate policy instruments according to broader land quality classes or soil types.

In contrast, and strictly for the sake of argument, an untargeted approach to improve water quality might entail the imposition of an export tax if the country is a net-exporter of its dominant agricultural product. This export tax instrument would tend to reduce overall production levels, and presumably this would also reduce the use of variable inputs including pesticides and fertilizers. Clearly various side-effects would also emerge, such as lower domestic prices, lower farming incomes, and a deterioration of the trade balance. One of the undesirable features of a general export tax would be that it does not take into account the different degrees of efforts that farmers have to make to meet emission targets. Since abatement costs are heterogeneous, some farms would find it easier and less costly to reduce emissions, while others would face more severe adjustment challenges. Using one blunt instrument, that is not targeted at the environmental objective, results in an inefficient allocation of resources in this example.

Box 4. Heterogeneity and tailored instruments: less favoured area payments in Austria

Austria implements less-favoured area (LFA) payments co-financed by the European Union as part of its Rural Development Plan. The three strategic objectives of LFA payments are: 1) to ensure agricultural land remains in use in these areas and thereby contribute to the maintenance of a viable rural community, 2) to maintain the countryside, and 3) to maintain and promote sustainable farming systems, in particular taking into account environmental protection requirements.

The geographical target is the less-favoured area used in agriculture, which in the Austrian case amounts to 71% of agricultural land, mainly, situated in mountainous areas. What constitutes an LFA and a mountainous area is circumscribed in two Council Regulations of the European Communities (Article 23 of Council Regulation (EC) No. 950/97 and Article 18 of Council Regulation (EC) No. 1257/1999), and Austria adds its own specific definition of mountainous areas, which must have:

- an altitude of at least 700 meters above sea-level, or
- a gradient (slope) of at least 20%, or
- A combination of at least 500 meters above sea-level and a gradient (slope) of at least 15%.

Additional eligibility criteria include a minimum farm size of 2 hectares of agricultural land, a minimum commitment period of five years, to exclude retired farmers, and the adoption of the code of Good Agricultural Practice (GAP).

The instruments employed are payments based on the farm-specific degree of natural handicap and that vary according to the specific circumstances. Since 2001 the amount of payment per hectare is varied according to the following factors:

- Size of the holding: the highest payment rates are available for farms with up to 6 hectares; farms between 6 and 100 hectares receive lower payment per hectare, with progressive reduction from 60 up to 100 hectares. Farms do not receive payments for farmed acreage exceeding 100 hectares.
- Farm type: differentiation into farms with or without livestock. Farms with fodder-based livestock systems receive a higher rate per hectare.
- Land type: pasture or other land;
- The extent of a persistent natural handicap, with the highest payments afforded to the farmers operating under the highest handicap. The extent of the handicap is measured using a system of points attributed to each farm (the mountain farmers' registry point system). The attribution of points is a rather complex process that takes account of the production difficulty on the farm and the region, as well as soil and climate conditions.

Although the scope of the target is broad, with LFAs covering 71% of agricultural land in Austria, it reflects obvious geographical conditions (mountains). The dependence of payments on handicap points improves the tailoring of the instrument, as these points reflect the farm-specific degree of difficulty of farming. They are a proxy for higher production costs in handicap regions.

Information on costs and benefits of targeted programmes

Targeted policies are dependent on information about the true cost and benefits associated with implementing them. Since targeted policies are typically also location specific the information requirements may seem onerous. But this need not necessarily be the case if the policy set moves from the

traditional approach that uses (conditional) payments to induce desired behaviour towards more subtle mechanisms. The challenge is to design mechanisms and policies that are at the same time formulated in general terms and able to address specific circumstances. Offering differentiated contracts instead of grants is one way to match more closely the specific circumstances. Contracts specify the exact deliverables and they can be legally enforced (Box 5).

The theory of modern policy design emphasizes information asymmetries and proposes mechanisms to reveal the true value of private costs and benefits. As an example take payments that are intended to induce the production of an environmental service. The policymaker (principal) wants the farmer (agent) to take some action that will result in the provision of an environmental good or service, for example, a set of practices that will increase biodiversity. The principal does not know what payment would be necessary to induce the agent to do this (the hidden characteristic problem). If a payment is offered to farmers, those who would incur high costs in the provision of the service may not participate, even though their participation could result in the largest gain to society as a whole (adverse selection). It may be difficult for policymakers to verify that farmers who participate in the programme are actually undertaking the actions that will result in greater biodiversity (hidden action problem); some farmers may take the payment in full knowledge that they are not fulfilling the conditions attached to receiving the payment (moral hazard).

Retrieving information becomes an integral part of the policy design, especially if monitoring and verifying the agent's actions may be too costly or impossible altogether. The solution lies in designing programmes that are incentive-compatible. Under such programmes by acting in his own interest that agent will also act in the interests of the principal. This requirement has significant implications for programme design and for the provision of information. If programme mechanisms can be designed that result in the reduction or elimination of information asymmetries, policy effectiveness can be increased and information vital to policy formation and evaluation can be provided.

In practice, the design and implementation of information revealing and incentive compatible programmes may not be straightforward, but working examples exist today in agri-environmental programmes. One way in which information revealing mechanisms can be set up in environmental programmes is through the use of auction methods as explained in OECD (2005e). The Conservation Reserve Programme (CRP) in the United States, for example, uses a bidding system to set payment rates for the removal of environmentally-sensitive land from production. Farmers submit bids on the payment that they will be willing to accept to retire parcels of land from production. The characteristics of the land and the proposed conservation measures are compared against a set of selection criteria that target highly erodible land, among other environmental factors. Bids are subject to caps and producers know the environmental score before placing their bids. Parcels that have the highest benefit while providing budgetary cost effectiveness are selected for inclusion in the programme (Box 6).

This type of approach has a number of advantages in terms of effectiveness and efficiency of the policy. Farmers who have lower opportunity costs by placing their land in the programme are likely to do so; it is often land that is least productive that is the most environmentally sensitive. The competitive nature of the auction mechanism means that there is less likelihood that farmers will be overpaid (paid in excess of opportunity costs), thus controlling costs and increasing policy efficiency.

Such programmes may not be universally applicable. The creation of a market for payments is perhaps an extreme example where the true cost of removing land from production is revealed for each parcel of land. This cannot be achieved in all cases, and the creation of market auctions may not always be the most practicable and least cost solution. For example, if the potential market is very local with only a few participants the auction mechanism is unlikely to yield efficient outcomes.

Box 5. Contracts for Environmental Stewardship in England

Most modern targeted agri-environmental policies include some form of contract between the authorities and the payment recipient. Such a contract usually specifies what services or commodities are to be delivered and at what price. The Environmental Stewardship program in England provides one example. The strategic objectives of this program are to:

- Conserve wildlife (biodiversity);
- Maintain and enhance landscape quality and character;
- Protect the historic environment and natural resources;
- Promote public access and understanding of the countryside; and
- Natural resource protection (DEFRA, 2005).

Environmental stewardship has three elements:

- Entry Level Stewardship (ELS) is open to all farmers and landowners, who farm their land conventionally. For all land enrolled, farmers receive a fixed payment per hectare (generally £30 per hectare) if they meet the programme requirement, measured using “points” (generally 30 points per hectare). Farmers choose from over 50 management options (e.g. hedgerow management, low input grassland, buffer strips), each of which is worth a certain number of “points” to reach the “points target”. The options for effective land management practices do not require specific training.
- Organic Entry Level Stewardship (OELS) is open to farmers who manage all or part of their land organically and who are not receiving aid under the Organic Aid Scheme (OAS) or the Organic Farming Scheme (OFS). It operates like ELS. More points are required (60 per hectare), but 30 are automatically granted to land farmed organically. The level of payment is also higher (generally £60 per hectare). In addition to organic practices, farmers choose from a similar list of management options to reach the required points.
- Higher Level Stewardship (HLS) aims to deliver significant environmental benefits in high priority situations and areas. It requires the preparation of a Farm Environmental Plan, which identifies the important environmental features targeted. Land management options linked to these features are selected from a larger list than the ELS. Farmers who apply must also enrol in an ELS or OELS, except in exceptional circumstances. Applications go through an assessment procedure. The agreement is then developed in discussion with the local Rural Development Service adviser. It includes indicators of success, i.e. outcomes to be achieved and timing. The payments received depend on the chosen options. They are also available for a wide range of capital works. The list of management options available for HLS includes more complex types of management, which require specialist advice.

The three elements have different levels of targeting. In all cases the target is well-defined and measurable, while it offers some flexibility that allows for a better accounting of local conditions. While ELS and OELS are open to all eligible farmers, HLS operates a selection of candidates based on plans, which have to demonstrate that the actions proposed will achieve the targeted environmental priorities in the region.

The agreement between Defra and the farmer is legally binding, with duration of five years for ELS and OELS and ten years for HLS. Under his contract, the farmer is required to fulfil his obligations for the full term of the agreement, and early withdrawal from the agreement will usually require refunding of all payments. There are penalties for breaches of the terms of agreement.

In 2008, national expenditures on Environmental Sensitive Areas (ESA) scheme and the Countryside Stewardship schemes amounted to around £300 million (EUR 440 million, USD 630 million) or about 30% of national support to producers in the United Kingdom.

**Box 6. Auctions to retrieve information: the Conservation Reserve Program (CRP)
in the United States**

This voluntary programme, introduced in 1985 following a long series of soil conservation programmes initiated in the 1930s, aims to retire land from production. Applicants with eligible land are selected, through a competitive bidding procedure, on the basis of a conservation plan they have prepared for the land to be enrolled. The plan lays down the type and schedule of actions to be undertaken and practices to be adopted (from a list established by the government). It also estimates expenditures and sets the annual rental payment that the farmer is willing to accept.

The programme originally targeted highly erodible land, defined as land that, even if farmed under the most rigorous conservation practices, would still produce unacceptable rates of soil erosion. As interest in other environmental benefits developed, the 1990 Farm Bill introduced a broader Environmental Benefits Index (EBI) to help with the selection of bids. Since 1997, the EBI includes six environmental factors -wildlife, water quality, erosion, expected long-term benefits and air quality- and a cost factor, which combines the cost-share ratio, the maximum payment rate and the offered rental rate. It is calculated for every parcel of land offered. The way the EBI is constructed ranks applications so as to maximize the environmental score subject to cost-effectiveness considerations (Cattaneo *et al.*, 2005, p.13). The economically efficient evaluation mechanism would be to rank bids according to the benefit-cost ratio.

For each signup, bids with the highest EBI score are accepted until the acreage enrolment objectives are met. Annual rental payments are determined by the offers farmers have submitted, but they cannot exceed the bid cap on payments per acre that is set beforehand. Through the auction mechanisms the opportunity cost for farmers to retire their land from production is revealed, hence minimizing the danger of overcompensation.

Accepted farmers enter into contracts with the Farm Service Agency (FSA) for a duration of 10 years on highly erodible land and 10 to 15 years on environmentally sensitive land. CRP is the largest land conservation programme in the United States. As of June 2004, there were 34.8 million acres enrolled and 600 000 contracts were in force. The annual cost was almost USD 1.7 billion and the average cost per enrolled acre was USD 48. As with most environmental programmes, requirements are expressed in terms of practices rather than achieving specific environmental outcomes, but Feather *et al.* (1999) found that there is evidence that CRP has contributed to environmental improvements.

Minimising implementation costs of targeted policies

Implementation costs, or policy-related transaction costs, for targeted policies arise from information needs, identification of program recipients, monitoring of the programs progress and simply from the bureaucracy involved in handling claims and projects. Such costs may be high and rather visible and for that reason targeting may be difficult to achieve. But implementation costs are only one element among different costs and benefits, all of which should be included when a move towards more targeted policy instruments is being considered.

While policy related transaction costs cannot be avoided, there are ways to minimise them, as suggested in OECD (2007c). Three key insights emerge from this work. First, to lower the costs of gathering information for targeted policies, utilise local bureaucracy and local stakeholder groups, including local NGOs. The more local the problem, the more efficient local mechanisms become to identify problem issues, target variables and eligible recipients. Second, rely as much as possible on information revealing mechanisms, such as auctions, to extract information about the private costs of compliance. Finally, modern administrative techniques and the latest technologies allow for information pooling, the elimination of duplications and rationalisation in the policy design, delivery and monitoring. This will also help to keep policy implementation costs under control. Stability in policy is also important, so that with the experience gained over time programs are cheaper to manage.

Can all problems be addressed with targeted policies?

While targeting has scope to improve the efficiency of agricultural policies, not all issues can be addressed with (locally) targeted policies. In case of transboundary externalities, such as global climate change, and some water and biodiversity issues, internationally coordinated policies are necessary in order to achieve an accepted division of cost and benefits, although at the national and regional level targeted policies could be conceived.

In some situations targeting to the specific non-commodity output may be relatively easy –hedges, habitat conditions etc but in others it may be more difficult – as in the case of landscape associated with a commodity output. In some situations it may be necessary to target the production factor or activity that is at the source of the non-commodity output. Apple trees and orchard landscapes are simply difficult to separate. If the target variables relate to the activity or production factors it is imperative that the instruments remain as much as possible decoupled from the level or intensity of marketed output and that there is strict adherence to geographical targeting.

The OECD work on multifunctionality (OECD, 2003b) suggests that policy design should first investigate the existence of jointness, or in other words ask the question whether the non-commodity output can be produced independently or not. If a reduction in support to the marketed agricultural output would result in underprovision of the non-commodity output, then specific solutions can be sought.

All policies lead to implementation costs that are necessarily incurred in the pursuit of policy objectives, and these costs are not wasteful *per se*. Relative to untargeted policies, the overall efficiency gains from targeted policies will tend to outweigh their implementation costs. Targeting leads to implementation costs that may account for a higher percentage of total transfers than those of untargeted measures. On the other hand, it tends to reduce the total amount of transfers, and consequently total costs are not necessarily higher. In fact, with targeting the total costs of achieving a given policy outcome are generally lower, although there may be situations where this may not be the case, such as when transaction costs are very high or the market failure addressed is widespread (OECD, 2007d).

Market solutions

Not all issues need to be addressed by government interventions. Sometimes a market based solution might be available for the provision of a positive externality or the internalisation of a negative one. Some, if not most, of the targeted policies discussed above already create a kind of market, but with the government as the buyer of the service or good, and a large number of farmers being the suppliers. The main motivation for this institutional arrangement is that a more competitive market involving many buyers and sellers is not thought to be feasible for the type of non-commodity outputs associated with agriculture. Public good characteristics of non-commodity outputs prevent them from being transacted in markets; in particular non-excludability renders provision through private transactions infeasible. Mechanisms to exclude those not paying from enjoying the non-commodity output may not exist or are too costly.

But market provision of non-commodity outputs exists in some cases, and most progress has been made in areas where some form of exclusion mechanism can be designed: agritourism is a case where private transactions can sometimes be organized straightforwardly to remunerate farmers (Box 7).

The most visible advance in private provision has been made for environmental services. OECD (2005a) reveals that most non-commodity outputs provided privately are environmental services, such as cultural landscapes or some wildlife habitats. The main reason for this bias towards environment seems to be that in rich countries environmental awareness is high and consumers are willing to pay for it. An

additional catalyzing factor is the presence of environmental NGOs that bundle the demands from an otherwise diffuse group of citizens.

Financing non-commodity outputs with public good characteristics is a difficult task, but market-based approaches to the internalisation of negative externalities are often feasible. Creating a market for pollution quota, such as manure trading in the Netherlands, results in a price tag for the polluting substances and induces polluters to seek ways to reduce the costs. Indeed, emission trading is generally becoming accepted as an effective tool to cap and reduce green-house gas emissions, provided certain parameters, such as the level of capping and the trading mechanism – are well designed. In the agri-environmental sector tradable permits and quota are used to tackle pollution problems such as nitrate in water and livestock waste pollution. This instrument is also used for the allocation of natural resources, for example for the allocation of irrigation water (Australia) and wetland development rights. See OECD (2005a) for a series of case studies.

The government has a clear role to play in these schemes. It has to create an institutional framework for a new market, and its single most important decision is probably the allocation of initial property rights. While initial allocation based on historical emissions tends to create the least political controversy, it bears strong distributional consequences. By rewarding those who have been big polluters in the past, they indirectly punish those who have already adopted more environmentally friendly methods. Grandfathering of rights also provides an incentive to increase emissions in order to get larger future emission rights. Alternative methods to distribute initial pollution rights include auctions.

Although market forces can do a lot, government interventions complement private initiatives by providing legislative frameworks (assign property rights) and/or providing financial assistance. As argued above, auctions to determine compliance costs for enrolling in environmental conservation schemes may be a viable alternative and provide a possible solution to problems related to information asymmetries. In this case, the government has a clear role to play in creating the market and in determining the rules of the game.

Providing information and education is also one of the options that governments can exercise to stimulate the demand for desired non-commodity outputs.

The delimitation of the boundaries of the non-commodity output and a clear identification of the providers of the service is essential to successful market provision. In other words, the market needs to be defined in terms of who provides what. Since (potential) markets for NCOs are often local, local and regional initiatives prevail. While OECD (2005a) found a large variation in pricing and valuation mechanisms, the market essentially results in compensation to the farmer for the loss incurred by moving to different farming practices.

Market solutions have also emerged in the area of food quality assurance. Private standards, supported and communicated through labels, have become an almost universal instrument to assure food quality along the supply chain (solving a coordination problem amongst suppliers) and to increase demand for quality products (solving the consumer's problem of unobservable quality before consumption). Whereas exclusively public inspection of quality norms used to be the rule in the past, self-regulation by the supply chain has been taking over some of these functions. But still, the government has a role to play, specifically in the area of food safety, by providing accepted and binding minimum product standards, such as those enshrined in the Codex Alimentarius, which can create a point of reference for private agents, and by making adherence to these norms enforceable.

Box 7. Tourist train in Norway

This initiative involved a four-party collaboration during the years 2000- 2002 between a group of farmers, a private railroad company, a local government organisation and, crucially, a landscape management firm that initiated and organized the project. The farmers were compensated for providing a positive externality to the users of the Flåm Railway: by letting goats graze near the railway track, the travellers could enjoy an even more magnificent view of the landscape through the windows of the coaches while the train slowly made its way up the mountains.

The modest financial compensation was just enough to cover the additional workload implied by the controlled grazing. At some stage one fulltime employee was charged with clearing trees and bushes, fencing and controlling the goats and kids. The funds were sourced from the Railway Company and a governmental district development fund.

The non-commodity output being provided has public good characteristics. The view is certainly non-rival and excludability is not completely guaranteed. While train passengers pay indirectly for the improved views, bikers and hikers along the parallel road are literally free riders.

More information on this initiative can be found in OECD (2005a).

When and where are generic (non-agricultural) policies appropriate?

Concerns about the level and the variability of farm household income have always had a central place in agricultural policies, but generic, non-agricultural, policies may be available that address these issues in more equitable and more efficient ways.

Agricultural incomes are inherently variable in all countries. Different approaches have been tried to smooth incomes: revenue stabilization through price measures; revenue insurance mechanisms and income stabilisation mechanisms (Canada). Alternatively, disposable income can be smoothed over time using tax provisions on income averaging (OECD 2005c).

Farm household incomes are not generally lower than incomes in other sectors in the economy (OECD, 2003a), but like in other sectors the income distribution is not uniform. There may be persistent problems of low income or poverty that affect a small portion of farm households. To address those problems, tried and tested social security systems and income safety nets are available throughout the OECD area, and farm households can in principle be folded into these systems, hence reducing the need for special farm household income policies that aim at achieving a certain minimum standard of living. In some cases, there may be a need to adapt the generally available regime to certain specific conditions prevailing in agriculture. For example, for implementing means-tested social safety-net policies to farm households, it may be advisable to consider whether criteria regarding wealth should be adjusted to reflect the fact that farm households may own valuable assets such as land, which they might otherwise have to sell before they can become eligible for assistance.

Rural development is claimed as an important rationale of agricultural policies, despite the fact that the share of agriculture in rural employment and value added is continuously declining. Rural areas represent about 85% of the territory of OECD countries, but a large majority of the rural workforce is employed in sectors other than primary agriculture, which accounts for less than 10% of the jobs in rural areas. Non-agricultural activities assume an increasing importance for the development of rural areas, and the identification of “rural” with “agriculture” is less and less valid. The question is therefore to what extent agricultural policies contribute to rural development, and whether multi-sector policies would not be more appropriate. OECD (2006b) concludes that rural development policy needs to be more than just an arm of agricultural support, although the potential and multi-faceted contributions of agriculture to rural development need to be taken into account. Effective rural development policies need to embrace other sectoral policies such as transport, education and training.

6. How to implement new policies?

The benefits of agricultural support programmes tend to be highly concentrated in specific groups, while the costs are spread widely across society. This reality of the political economy suggests that there is little countervailing lobbying pressure for reform (OECD 2004a). Distributional concerns can inhibit reform, as there will inevitably be some losers from the policy change. Pointing to potential aggregate welfare gains helps little in garnering political support for reforms if actual redistribution and facilitation of adjustment is not made part of the reform package. Adjustment measures must be carefully designed. They should be time bound with a clear exit strategy, they should be decoupled from production and from factors of production, they should aim at re-integrating displaced workers if such displacement is expected, they should harness, and as far as possible be compatible with, general adjustment and safety net measures available generally in the economy and should be transparent and accountable.

Adjustment aid should in principle address the capacity of those affected negatively by reforms to re-adjust their capacity to earn an income. In other words, provide assistance to move to other activities outside agriculture, develop strategies to diversify income sources, or perhaps continue farming in other physical locations that provide better business opportunities. Such measures would have to be carefully targeted to those in need and should be time-bound.

Governments have a wide array of measures to choose from while respecting these general guidelines. Some may be directed to individual agents, others can provide more general types of assistance. Among the former are education and training, debt restructuring, grants and different forms of technical assistance. Among the latter are infrastructure development, quality improvement schemes and marketing and promotion. In all cases the measures taken should be such as to trigger and support the potential of individual actors to adjust.

Another form of adjustment cost relates to negative capital gains. As some part of the transfers generated through support programmes tends to be capitalized in farm assets, most notably land and quota rents, a radical reform would tend to reduce the wealth of those who receive support (OECD 2006c).

Moving from decoupled towards targeted support therefore has to face the issue of wealth erosion, and the question emerges whether or not some form of monetary compensation may be required. Although long-term provision of support creates the perception of “entitlement” that may be hard to break, it is not generally the case that a strong case for compensation can be made on the ground of infringing a property right (OECD, 2006f). The economic rationale for compensation is weaker than for adjustment measures, but the experience of past reforms shows that compensation may be an important part of the reform process, as it can improve outcomes in terms of equity.

Which level of government?

The fact that non-commodity outputs and externalities are often local public goods argues for devolution of responsibility, for both decision making and financing, from the national level to sub-national and regional bodies. Sub-central or local approaches to provision of non-commodity outputs are superior because the local public goods and externalities are location specific and cannot be moved. In contrast, commodity markets are national and international in scope, implying that commodity market interventions would have to be national affairs, perhaps with international coordination. The same holds for non-commodity outputs that can be regarded as national or international public goods, such as biodiversity.

Income distribution and food safety policies are national matters. Biodiversity is an issue that spans regions and countries, and whose importance is derived from its non-use value. No local or regional level

would be appropriate because the benefits of these policies accrue to the nation as a whole, or even the world as a whole, while the cost would have to be borne at a sub-national level. In contrast, if the non-commodity output is a local public good (spatially bounded), funding by sub-national bodies is most appropriate.

The process of identification of policy alternatives in a specific and local context should typically seek close involvement of those stakeholders directly concerned by reforms. In the context of agricultural policy reform the groups of stakeholders include not just farmers, but the wider rural community and urban citizens who might seek alternative functions for the rural landscape. The more localized the specific market failure addressed by reforms the lower down the hierarchy alternative options can be identified. Involvement of stakeholders reduces the risk of a mismatch between general policy design and local needs.

Identifying the local level as the most appropriate for some types of policies also creates the opportunity for closer stakeholder involvement with policy making. Examples of bottom-up approaches include the Canada Community Futures Programme and the EU LEADER programme. By bringing government closer to the citizens involved, it potentially enhances the democratic process.

7. How to monitor and evaluate?

Without adequate information policy measures cannot be targeted, efficient and cost effective. Statistics and data provide a key input into the information base necessary for the formation and evaluation of agricultural policy. Key requirements are that data be relevant, objective, transparent, accurate, and comparable over time and space, accessible and timely. The OECD's PSE/CSE database provides an example of internationally comparable data used to track the level and composition of agricultural support in the OECD member countries and some important non-member countries. It provides the basis for analysis of effects of these policies with statistical methods and economic models.

Monitoring is a continuous process that surveys the performance of policy programmes by comparing the programme outputs to the instruments employed. Continuous monitoring should detect deviations from operational objectives and flag any need to adjust policy instruments.

Evaluation is of a more strategic nature and pertains to the periodic assessment of effectiveness and efficiency of the policy set, with a view to provide inputs into the strategic decision making. Evaluation also fulfils a key role in the enhancement of accountability.

Both monitoring and evaluation face the fundamental problem of disentangling the effects of policy measures from other factors that impact on the degree to which policy objectives are realized. General economic conditions, including world market developments, will contribute to the failure or the achievement of the policy objectives, and it is important for the monitoring and evaluation process to make adjustments for those factors that are beyond the scope and control of the policies. This is where tools of economic analysis, such as quantitative models of various kinds, can play a useful role.

Accurate and reliable information is key to monitoring and evaluation. Ideally information needs are already embedded from the start into the policy design cycle. Often, however, monitoring and evaluation are hampered by reliance on older information systems that have lost their relevance in the light of new objectives and targeted policies. OECD (2007f) identifies a number of issues in order to improve the provision of information for policy formation at reasonable cost which are summarized below.

Close interaction is required between data providers (statistical agencies and research institutes) and users (policy makers) in order that the usefulness of existing sources can be evaluated, additional data needs can be communicated, and solutions can be found to filling key information gaps.

Modifications to existing surveys need to be evaluated in order to enhance their usefulness at relatively low cost. An area in which this is particularly relevant is the enhancement of farm-level surveys to provide greater information on sources of income, wealth and level of well-being, and the provision of additional information on farming practices with environmental implications.

Information is valuable, but its supply is not costless. Careful consideration needs to be given to controlling both the private and public costs of acquiring and processing data. New technologies, such as GIS systems and electronic data collection, may offer some possibilities in this regard. In other cases the requirement will be to design collection instruments in such a way that the costs imposed on the providers of data do not become excessively burdensome. The primary suppliers of data (*e.g.* farmers) are likely to be more amenable to absorbing the costs of provision if data processors can find ways to make the data useful and usable by those suppliers. The cost of obtaining information and evaluating programmes must be seen in relation to the payments. Usually, these costs will only be a fraction of the total transfers provided.

Policy design and implementation needs to take into account the reduction of information asymmetries. In some cases it may be possible to make the provision of information part of the policy implementation process. In other cases, the actual method of implementation may help to reduce the potential costs of missing information and thereby increase policy effectiveness. At a more basic level, evaluation criteria should be enshrined in the legal texts that introduce a new programme.

Improving data for the analysis of environmental policies is likely to be a major priority in OECD countries in the future. While considerable advances have been made on internationally comparable indicators significant challenges remain. First, the scientific and analytical basis underlying some agri-environmental relationships needs to be developed further in order to provide useful indicators. One area in which this is the case is the relationship between farm management practices and environmental outcomes (biodiversity is an example cited). Second, there is the lack of data availability in many countries relating to certain indicators. The areas in which it is difficult to obtain representative country coverage are: soil erosion, biodiversity, and organic carbon; water use and quality; agricultural landscapes and land ecosystem functions; and farm management indicators relating to the environment.

The development of monetary (or common numeraire) methods for assessing environmental outcomes are particularly important since these open the possibility for benefit/cost analysis. Challenges remain, such as the problems created when technical relationships are uncertain (*e.g.* impact of specific farm management practices on biodiversity) or when it is difficult to measure outcomes (*e.g.* the impact of policy measures on non point source pollution) or because it is difficult to assign a value to a particular outcome. In such cases, it may be necessary to focus on obtaining information that will allow the construction of indicators that permit an assessment of 'movements in the right direction'. Indicators of this type can either be input focused (*e.g.* the adoption of management practices that are believed to result in improved environmental performance), or output focused (physical indicators of improvement such as changes in nitrogen loadings in streams or the size of wildlife populations). (OECD, 2008).

International collaboration among public agencies in the area of data collection and processing can play an important role in increasing the effectiveness with which existing data are used, as well as improving the policy relevance of information. Activities that involve the sharing of knowledge on concepts, data collection experiences, and processing techniques can play an important role. Two examples that show the relevance of this approach are activities undertaken on the measurement of farm household income by the Intersecretariat Working Group on Agriculture and Rural Indicators (IWG.AGRI), and joint activities undertaken on environmental indicators by the OECD and other bodies.

8. Conclusions: what have we learned about how to implement the positive reform agenda?

In 1998, OECD Ministers for agriculture defined the operational criteria of the policy set needed to achieve the shared goals they had defined. These criteria related to transparency, targeting, decoupling and tailoring. Ministers also called for flexibility and equity in the way policies are implemented. The Positive Reform Agenda agreed in 2002, further defined the key elements of a policy set that would enable OECD member countries to reap the gains from market orientation and more open trade while simultaneously addressing a broad range of domestic policy objectives. Much emphasis was given to the need for clear, explicit and measurable objectives. The desirable domestic policy set was defined as falling into two categories to be implemented sequentially, the first dealing with market failures and the second dealing with the incomes of agricultural households. The policy analysis undertaken in recent years has attempted to translate these policy prescriptions into more concrete and operational advice, often based on the actual experiences of countries as they implement reform. A lot of attention has been paid to political economy aspects of the reform process with a view to helping governments define a feasible reform path, and to stay on it despite the obstacles and risks of reversal that inevitably emerge.

What progress has been made in terms of defining measurable objectives, and subsequently in designing policies that would adequately address them? Historically the objectives of agricultural policies have evolved with society's attitude towards agriculture. The objective of producing adequate amounts of food at reasonable prices to feed the growing urban population in the industrialising society is of less relevance now in OECD countries. While farm income objectives are still figuring prominently on the menu of objectives, agricultural policies now explicitly address a wider range of issues relating to society at large. Environmental quality, landscape, animal welfare and food safety figure prominently among them.

To the extent that measures such as market price support and payments to inputs and outputs still dominate the policy mix in many OECD countries they do not bring about the desired results or do not achieve them in the most efficient and equitable way. Several countries have made significant change towards more decoupled policy measures in recent years. The resulting support is much less distortive than policies that intervene in output- and input markets. However, the resulting payments have typically been introduced to serve a compensatory role, mirroring the pattern of previous farm income support. It can thus happen that they do not effectively address market failures. This latter category of issues is currently being dealt with through a variety of policies, reflecting both the diversity of conditions prevailing across the OECD area and reflecting the different stages of policy reforms. Rather than addressing market failures and income objectives sequentially, many countries currently follow policies that intertwine the two policy areas. This is perhaps most evident in policy configurations that attach cross-compliance conditions to more decoupled forms of support. In doing so, some countries attempt to connect agricultural support payments with objectives relating to market failures and externalities. But this is a very indirect way to address issues like environmental sustainability and animal welfare. Policies that are directly targeted at each of the objectives separately could be expected to be more effective and efficient.

Due to the phenomenon known as 'capitalization', payments based on area or, more generally, based on farm assets, can raise land prices and discourage entry and exit from the sector, and can hence represent a limiting factor for sectoral dynamics. In addition, if support entitlements are based on historical area or receipts, as is usually the case, more decoupled forms of support tend to preserve pre-existing patterns of distribution. This means that support is highly concentrated on the largest farms. These are unlikely to be the intended beneficiaries of the policy, while those actually experiencing income difficulties will not necessarily be helped.

More decoupled payments are playing an important role in the process of reforming agricultural support policies. Careful policy design granting farmers the greatest possible freedom to respond to market signals will undo much of the distortion associated with the previous policy set, and liberate farmers to

become more innovative and competitive. However, unbundling policies that address income objectives from policies that address market failures is still far from perfect and additional gains in terms of effectiveness and efficiency could be reaped if policies were more targeted towards alleviating specific market failures.

What should the new policy set look like?

Reconnecting agricultural policies with specific objectives is the major task that lies ahead for policy makers. Policies targeted at precise aims and using tailored instruments by design lead to specific actions of farmers and other participants in the agricultural sector. They can achieve a given policy objective at lower resource cost than untargeted policies. Policy makers have a range of instruments at their disposal. Positive incentives to stimulate non-commodity outputs are just one of them. Governments can enter into specific contractual arrangements with farmers or groups of farmers for the provision of certain services. Taxes on inputs exert a negative incentive on input use, and can be used address some environmental externalities; regulation and the associated enforcement mechanisms is another set of instruments that can be used to achieve societal aims. New markets for hitherto un-marketed environmental or landscape services can sometimes be created with governments providing the initial financial or fiscal stimulus or the legal and institutional frameworks needed.

There is a growing number of good examples of targeted agricultural policies among OECD countries. Governments are finding ways of getting farmers to reveal the information needed to target incentives to where the results will be best. Experience is also growing in the development of instruments that encourage the adoption of specific farming practices where it is not feasible to identify an individual target (as in the case of non-point source pollution). These examples show that countries apparently find these policies superior to other policy configurations, and they can serve as a basis for designing new approaches in countries that aim at following best practice.

The costs associated with implementing targeted policies are more visible to taxpayers than the economic costs of broad-based market interventions, which usually fall on consumers. Implementation costs (the costs associated with designing, implementing, monitoring and evaluating policy measures) may increase making a move towards targeted policies more challenging, but the overall economic gains tend to outweigh implementation costs. The latest technologies (GIS systems, internet, electronic banking) provide many opportunities to reduce these costs. A strong economic case for reform towards targeting can therefore be made. Targeted policies are also likely to be more politically sustainable as they can be clearly explained and justified *vis-a-vis* the general public. On the other hand, one can envisage cases where the targeted option may not have the lowest costs because of very high policy-related transaction costs or because the market failure addressed is too widespread for targeting to be an effective solution. OECD (2007d) shows that such cases may be expected to be rare⁵

Where non-commodity outputs and externalities are local public goods, a case can be made for devolution of responsibility, for both decision-making and financing, from the national level to sub-national and regional bodies. In contrast, non-commodity outputs such as biodiversity that may be national or international in nature should not be dealt with at the purely local level and have to be dealt with at the national or international level. In other words, the optimal level of government is determined by the scope of the positive or negative externality involved.

Measures targeting market failures affect farmers' incomes. That is why, in the sequencing of policy interventions, they should be dealt with first. But where a need is seen to engage in income policies, the

5. The hypothetical examples developed in this study indicate that targeted policies, whether decoupled or not, are the least-cost options under a wide range of assumptions about key parameter values.

case for targeting is also compelling with respect to income problems. Targeted income support will always be less costly than blanket measures and the gains in terms of transparency and equity are clear. There is some scope for using generally available policy mechanisms albeit adapted to the sector's needs. For example, income smoothing through the tax system could provide a solution to income variability for some farmers. However, there is currently a complex web of long established exceptions and special treatments in the tax and social security systems in many countries that may be significantly impeding adjustment. A carefully designed trajectory to fold the farm sector into the systems that exist for the non-agricultural population is needed. Such changes would improve policy coherence and ensure more equitable outcomes.

How to get onto a reform trajectory and stay on it - preparing stakeholders for reform?.

Designing improved policies that serve the stated objectives in least-cost ways is not taking place in a void, as all OECD countries have a long history of established policies in place. Moving from current policies towards targeted policies has distributional consequences, both in terms of income adjustments and in terms of wealth effects. These distributional consequences may justify designing accompanying adjustment policies and compensation packages in some cases. Adjustment policies should be carefully designed to ensure that they do not interfere with the reform process by impeding the changes they are supposed to facilitate, and should be time limited. A clear exit option will be an important component. Similarly, compensation can be considered if, in its absence, there is significant risk that the reform will not occur, but the costs should not outweigh the potential benefits of that reform. Compensation should be fully portable in the sense of allowing the recipient (and the associated farm assets) to leave the sector being reformed and to renounce any further claims for assistance. Policy makers have to credibly commit to the irreversibility of reforms in order to implement them successfully.

Reform experiences in several countries have shown that the adjustment capacity of the sector is sometimes underestimated. Farmers have responded positively to policy reform in ways that were not anticipated. To allow this to occur, careful thought needs to be given to identifying and removing obstacles to the needed adjustment. In many countries land ownership and transfer is strongly regulated, and fiscal provisions are also influential in the entry and exit decisions of farm operators. The complex range of preferences and benefits relating to the status of farming or being a farmer needs to be examined to remove obstacles to diversification and innovation.

Removing obstacles to change is central to garnering support for a reform process. Experience has shown that reform processes that are carefully prepared, and accompanied by appropriately designed adjustment measures are more acceptable and more enduring than those that are imposed on unprepared stakeholders.

Preparing the reform by undertaking in-depth studies during the early stages of the policy cycle has been found to be a crucial factor in successful policy change in many different settings in OECD countries. This process brings several advantages: it can fuel a consultation process involving all the potential gainers and losers; it can help to anticipate the effects of the reform and by so doing identify where the adjustment pressures are likely to emerge and who is likely to be adversely affected; it can facilitate the design of adjustment measures that are well targeted; and, finally, it will allow lessons to be learned and applied in modifying programmes as the process continues or in applying reform efforts in other sectors.

A more formalised, evidence based, best practice type approach to the policy making process itself has been shown to improve the policy landscape throughout the OECD area. By learning from best practices and avoiding known pitfalls policy reforms can improve upon the example of early reformers and use the experience of others in garnering political support in the early stages of the policy reform cycle.

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