

INTEGRATION OF EU WATER AND DEVELOPMENT POLICIES: VISION OR PLAUSIBLE EXPECTATION?

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The paper examines the current state and future prospects of integration between EU water and development policies (agricultural and regional) in the light of past experience and recent policy developments (Water Framework Directive and reforms of the CAP and the Structural Funds). The focus is on the southern EU Member States and the problems of water scarcity faced in rural areas which accounts, among others, for their sensitivity to desertification. Research is based on secondary analysis of EU policy documents and of the pertinent literature.

Concepts of integration in water resources management are first reviewed, and the need for and the characteristics of integration between water and development policies are examined. A set of criteria for analyzing policy integration is then presented. These include: substantive integration; integration of goals; integration between actors and policy networks; and, procedural integration. Next, the main features of the EU water, regional and agricultural policies are presented and compared. The analysis of the current state of integration between EU water, regional and agricultural policies follows on the basis of the selected criteria. Positive signs and problems with respect to progress towards policy integration are identified. Finally, the question whether, in a dynamically changing socio-political and policy context, it is plausible to expect that the integration of the three policies will materialize and bring the desired results – namely, contribute to sustainable development in general and to combating desertification in Southern EU regions in particular is addressed. Substantive and procedural requirements to promote policy integration are suggested. Theoretical reflections over the nature of policy integration and the relation between its substantive and procedural aspects conclude the paper.

1. INTRODUCTION

Water, an essential life support resource for humans and ecosystems, is inextricably linked to development. Since antiquity, differences in availability and proximity to sources of water have accounted for differences in the socio-spatial structure of human settlements and modes of production (see, for example, Wittfogel, 1957; Mumford, 1961). The available quantity of water determines the development potential of all human activities (housing, farming, energy production, etc). Water quality is crucial for public health while the state of the aquatic environment is becoming an important determinant of regional attractiveness and location factor for investments. Although water resources are renewable, they cannot be exploited indefinitely without eventually degrading. The mismanagement of water has long-term impacts on the sustainability of a region. In the semi-arid and sub-humid areas of Mediterranean Europe, the incidence of desertification owes, to a considerable extent, to serious shortages of water resources due to climatic and hydrologic variability and changes, development policies dissociated from water availability, mismanagement of water resources, and increasing water consumption.

Water management in Southern Europe, as in other arid regions of the world, has been based on an “expansionist”, short-sighted, single-use logic following the dominant “supply-driven” economic development model that considers water as merely a passive resource “to be developed”, a “fuel” for economic growth (Worster, 1985). A patchwork of often inefficient waterworks, built to meet or even generate demand has led to overuse of water and deterioration of its quality. In recent years, regional and interregional conflicts among competing use(s) have intensified. Furthermore, the ecological importance of water has been neglected. Critical aquatic ecosystems, including some of Mediterranean’s most important wetlands have been damaged, sometimes irreversibly, by waterworks, water abstraction and wastewater discharges. Ecosystem degradation has important “knock-on” effects on the natural environment and is an important contributor to desertification (EEA, 1998).

Water resources are complex systems, parts of broader nature-society systems, serving multiple, human and non-human uses. The presence of several agencies with separate responsibilities over various aspects and uses of water has contributed to a fragmented approach to water management and a relative blindness to the numerous interdependencies between water quantity and quality and, more broadly, between water resources, human activities, uses of land, ecosystems and society.

The need for “integration” in water resource management has been widely recognised in policy documents starting with the 1992 milestones of the International Conference of Dublin on Water and the Environment and the UN Conference on Environment and Development (UNCED) in Rio resulting in the freshwater chapter of Agenda 21. Integration is the reason behind the major reform of European Union’s (EU) water policy, marked by the 2000 Water Framework Directive (WFD). The success of the WFD, and by projection, the combat of the water-related causes of desertification, will much depend, however, on its integration with other policies directly or indirectly influencing water use.

EU regional and agricultural policies are major drivers of development and of land use change in the desertification-prone, mainly rural, areas of southern Europe. EU

funds account for the bulk of public investments in these areas. Several past EU regional and agricultural development programmes, designed without taking into account water resource constraints, have caused detrimental impacts on water quantity and quality (WWF, 2003). Recent revisions of EU development policies attempt to account better for environmental (including water-related) issues.

For sceptics, evidence from the ground, where Community-financed developments in many cases continue to undermine water management goals, suggests that this quest for integration is elusive. For optimists, recent policy changes, such as the WFD and the revisions of the Common Agricultural Policy (CAP) and the Structural Funds (SFs), mark important progress in the process of integration. This paper examines the current status and future prospects of integration between EU water and development policies in the light of past experience and recent policy changes seeking to identify whether it can be plausibly expected to occur in the future and bring the desired results; namely, contribute to sustainable development. For the southern, desertification-sensitive EU regions, the question becomes if this integration can contribute to combating desertification and alleviate the associated development problems.

Section 2 presents a set of guiding criteria for assessing policy integration. Section 3 presents the main features of the EU water policy, focusing on the WFD. The key features of EU regional and agricultural policies, especially as they relate to water management, are also briefly presented. In sections 4-7 the degree of integration between the three policies is assessed upon the four criteria identified in section 2. The concluding section returns to the principal question of this paper.

2. A FRAMEWORK FOR ANALYSING POLICY INTEGRATION

The framework for assessing Policy Integration used in this paper is based on Briassoulis (2005). Policy integration (PI) is considered to occur when policies take into account their effects on each other across spatial levels and over time. It refers to “a process of sewing together and coordinating various policies, both across (vertically) and along (horizontal) levels of governance, modifying them appropriately if necessary, to create an interlocking, non-hierarchical, loosely coupled, multi-level, policy system that functions harmoniously in unity” (Briassoulis, 2005). For the analysis of the integration between water and development policies, the following interlinked criteria are used:

1. *Substantive integration.* Different policies possess different logics and embody different theories. This is especially true for environment-related policies, such as the EU WFD, and development-related policies, such as the EU regional policy and the CAP, that have dissimilar origins and very different historical trajectories. Unearthing these underlying theories (ideologies) and examining the degree of (or, trends towards) conceptual convergence/integration is a key analytical task in assessing progress towards PI. Such an analysis sheds light on the essential compatibility of policy goals and approaches and the larger issues hidden in implementation conflicts. This paper emphasizes the different conceptions of “development” underlying each policy, particularly, their pre-analytic theory of nature-economy relationships.

2. *Integration of policy goals and objectives.* Eliciting the degree of PI requires an analysis of the goals, objectives, and targets of the policies considered to assess whether they are common or compatible or, at least, agree with one another. Furthermore, PI *per se* may be set separately as an explicit policy goal. Statements indicating political commitment or stipulation of specific integration goals, targets, and timetables can be seen as evidence of PI.
3. *Integration between actors and actor networks.* Policy formulation and implementation involves particular networks of formal and informal actors. A key question is whether these networks share some common actors who can introduce indirectly a degree of coherence between different policies. A second issue is whether actors belong more to “policy communities” rather than “issue networks”, implying more consensus and continuous interaction (Bressers and Kuks, 2002).
4. *Procedural integration* refers to the existence of provisions that integrate the implementation procedures and the instruments of the policies considered at and across the different spatial/organisational levels on which they apply. Examples of moves towards procedural integration include regulations for cross-compliance, statutory responsibilities to consult water actors when drafting regional development plans, joint committees, new agencies or administrative divisions with a coordinative mission. Particular integrative instruments and related procedures might also serve to integrate policies (e.g. Environmental Impact Assessment, green taxation, etc.).

This paper is based on desk research including study of policy documents and scientific literature, plus selected interviews with experts and policy makers. A pitfall of this approach is that policy rhetoric is often very distant from implementation practice. Incorrect conclusions may be reached by looking at policy documents alone or by consulting policy implementers only. Evidence from the actual working of policies and decisions is used where relevant to demonstrate whether and how provisions work on the ground. This paper focuses on the EU level, but at some points the discussion unavoidably refers to experience from national/local policy implementation practice in southern Europe. Implementation instruments and processes, however, may differ considerably among Member States (MS), particularly since recent EU policies rely heavily on subsidiarity and decentralisation. Commenting on regional policy, Roberts (2003: 2) notes that “whilst in theory a single system for regional development is present throughout the EC, in practice 15 or more regional systems exist”.

3. EU WATER AND DEVELOPMENT POLICIES

3.1 EU Water Policy

The 2000 Water Framework Directive (WFD) aims to combine the various existing pieces of water legislation into a coherent whole and in addition, to extend regulation to account for the ecological quality of waters. Within this framework, surface waters and groundwater are to be protected using a common management approach and following common objectives, principles and basic measures across the EU (Moss, 2003). The WFD sets procedural rules and guidelines for organisation, planning and management at the river basin level. River basin plans and programmes are to provide

the platform to achieve ecological and pre-existing standards (Kallis and Butler, 2001).

In line with the Community's environmental policy goals, as expressed in its Environmental Action Programmes, the overarching goal of EU water policy is to contribute to sustainable development in the EU. This includes, but is not limited to, the goal of environmental protection. Older Directives, now subsets of EU water policy, pursued two principal goals, now subsumed under the sustainable development goal: public health protection and establishment of a "level-playing field" of environmental standards to reduce distortions in competition (Kallis and Nijkamp, 2000).

The principal aim of the WFD is to "maintain and improve the aquatic environment in the Community" (CEC, 2000, preamble 19). More specific objectives include: prevention of further deterioration and enhancement of aquatic ecosystems, dependant terrestrial ecosystems and wetlands; sustainable use of water; enhanced protection and improvement of the aquatic environment; prevention and reduction of groundwater pollution; provision of sufficient, good quality water as needed for use, and mitigation of droughts and floods (CEC, 2000, Article 1). The overriding target is to achieve at least a "good" status for water bodies in terms of ecological and chemical parameters (plus water quantity for groundwater) and to prevent the deterioration of aquatic ecosystems (ibid, Art. 4). Bathing areas, drinking sources, habitats and eutrophication/nitrate-sensitive zones are to be registered as "protected areas", incorporating, hence, the standards of the respective directives in the WFD structure (ibid, Art. 6).

EU water policy is primarily a *water quality* policy. Water directives are part of EU environmental policy, decided by the Ministers of Environment of the MS and executed by DG-Environment of the European Commission. The Maastricht and the Amsterdam Treaties have separated "the management of water resources" from environmental policy, establishing in this way a division in competences between *water quality* and *water quantity* management (Kraemer, 1998). Unanimity in the European Council is needed for decisions concerning water resources management, whereas majority voting suffices for environmental policy. The Directive proclaims that the "control of quantity is an ancillary element in securing good water quality" (CEC, 2000, preamble 19). However, many WFD provisions affect significantly water quantity management (Kallis and Butler, 2001).

The main water policy instrument is regulation. This is not accompanied by specific supporting financial instruments. Certain water-related projects may be financed through the Life programme of DG-Environment. EU water policy contains a mix of "command and control" and procedural instruments, with a definite trend towards assigning the latter a greater role. Command and control instruments can be further subdivided into quality/emission standards for particular substances/parameters and uniform technological requirements. In comparison, procedural regulation prescribes processes (and not standards or measures) that competent authorities should implement. The main procedural requirement of the WFD is the delineation of River Basin Districts (RBDs), the designation of River Basin Authorities (RBAs) and the preparation of river basin plans and programmes of measures to achieve the Directive's goals. Other important procedural requirements include: establishment of

monitoring programmes; licensing schemes for abstractions, impoundments or discharges; processes for public information, consultation and participation; and reporting to the EC (CEC, 2000). Requirements for planning, monitoring and reporting are precisely defined in the WFD and other water directives.

Other than complying with the procedural requirements, the national competent authorities have considerable discretion in choosing the organisational form of the RBAs, the design of participatory processes, or any other means to achieve the Directive's goals as long as they conform to its general principles. The minimum requirement is to implement existing legally-set instruments. In addition, the WFD introduces a number of mandatory new instruments to be implemented by MS and RBAs without prescribing their details, however. These include costing/pricing, zoning of designated areas, abstraction and discharge permitting and authorisation of water quality-impacting activities. When the aforementioned "basic measures" do not suffice to achieve the environmental objectives of the directive, the RBAs will have to implement additional measures, such as stricter permit standards, zones for good farming practices beyond the nitrate sensitive areas, water demand management programmes, etc.

The DG-Environment has the responsibility to ensure that MS comply with the legal requirements of the water Directives. Monitoring and reporting, however, are responsibilities of each MS. The EC can check whether certain implementation deadlines or procedural requirements are respected but it is less able to evaluate and judge both the content and the accuracy of the voluminous data provided by MS for specific standards.

The WFD is a milestone in the Union's environmental policy (Kallis and Butler, 2001). Recognising the limits of the top-down, "command and control" approach, it adopts a more flexible and cooperative implementation strategy. Many of its core requirements were not defined in the legal text. A so-called "Common Implementation Strategy" (CIS) is meant to lead to EU-wide standards and guidance for the implementation of the WFD (EC, 2001). The most important output of the CIS is the agreement on the EU-wide set of parameters/standards differentiating water status classes (high, good, moderate, poor, bad) by type of water body. The EC has set up working groups with the participation of national delegates, experts and civil society/NGO representatives to prepare non-binding guidance on various implementation-related tasks such as planning processes, pricing, economic evaluation, participation, monitoring, etc. (EC, 2003a).

The framework approach of the WFD blurs the border between compliance and non-compliance. The Directive is (deliberately) ambiguous over whether MS should achieve the good ecological status objectives or should simply "aim to" achieve them, meaning that they are obliged to implement the necessary measures and procedures, but are not culpable if these do not achieve eventually the objectives. Furthermore, the Directive allows generous derogations (e.g. when costs are "excessive", when waters are "significantly modified", or when the reason for damage is a "sustainable human activity"). Compared to the straightforward "command and control" directives, the ambiguity of such terms makes it much more difficult to judge on non-compliance (Kallis and Butler, 2001).

Implementation processes are highly variable and depend on the institutional organisation of the water sector in each MS. The minimum procedural requirements of the WFD will soon have to apply all over the EU. Still these leave considerable freedom in the allocation of powers between different tiers of government, the choice of legal and economic instruments, the planning process and content, etc., implying potentially great differences in implementation even in neighbouring regions of the same country (Moss, 2003).

3.2 EU Regional Policy

Regional policy aims to achieve social and economic cohesion in the Union by “reducing disparities between the levels of development of the various regions and the backwardness of the least-favoured regions or islands, including rural areas” (CEC, 1999a, preamble 1). To achieve harmonious development, support is provided to help the least well-off regions rise to the challenge of the common market and the monetary union. For the period 2000-2006, three specific regional development objectives target the development of lagging regions, of regions facing structural adjustment problems and the development of human resources and the modernisation of education (CEC, 1999a).

EU regional policy is delivered through financial instruments, the SFs, which include: the European Regional Development Fund (ERDF), the European Social Fund (ESF), the Guidance Section of the European Agriculture Guarantee and Guidance Fund (EAGGF) and the Financial Instrument for Fisheries Guidance (FIFG). The Cohesion Fund (CF) provides assistance for environmental and transportation infrastructure in four lagging countries of the EU (Greece, Portugal, Spain, Ireland), and is also included under the SFs, albeit implemented independently. Finally, the SFs include a number of Community initiatives, such as the INTERREG, LEADER +, URBAN, and EQUAL, targeting cross-border cooperation, innovative rural development, urban regeneration, and employment, accounting however for a tiny proportion of the overall regional support budget.

Community funding is allocated and managed on the basis of rules and processes specified in regulations concerning eligibility criteria for areas and beneficiaries; procedural rules for applying, granting, monitoring and evaluating funding; enforcement of investment standards and quality controls; auditing, etc. Other procedural requirements include publicisation of programme reporting, organisation of public-targeted events and consultation processes (CEC, 1999a).

MS applying for structural support propose, negotiate and agree with the EC a Community Support Framework (CSF), which is made up of different Regional and Sectoral Operational Programmes (OP). Regional OPs concern the development of a specific region, while Sectoral OPs target specific sectors (e.g. transport) or issues (ex. environment). Alternatively to the submission and negotiation of a CSF, a MS or a region can submit a Single Programming Document (SDP), which is the equivalent of an independent Operational Programme.

MS submit their CSF, or independent SPDs, in a predefined format and then agree on the programme details setting out the budgetary envelope, aims, objectives, priorities, eligible measures, monitoring and evaluation procedures and general implementation

requirements. Responsibility for programme implementation and monitoring rests with the MS, which should establish a management authority (MA) and a Monitoring Committee (MC), for the whole CSF and the Ops included. The MC is composed of MS officials, EC representatives (no voting rights) and economic, social and other partners, and is responsible for overseeing programme implementation and approving all major management decisions. Programme effectiveness is evaluated before programme commencement (*ex-ante*), in the middle of the implementation period (*interim*) and after programme completion (*ex-post*). Although evaluations are meant to provide information on management effectiveness and on programme implementation results, their majority is limited to management and financial issues, with the evaluation of impacts and results been continuously neglected.

The EC influences the direction of regional development in the MS by defining the funding priorities and the eligibility criteria of the SF, by negotiating and approving the proposed programmes, by participating in the MCs of the programmes and through its competence on approving major programme changes. However, its role in the actual selection of projects by the MS (other than “major” SF, or CF projects) and the monitoring of their implementation is limited. It may intervene through formal processes in cases where gross mismanagement of funds is suspected, but it does not have the capacity to follow closely the implementation of separate projects against predefined goals/indicators.

EU regional policy has several implications for water resources management. Many SF-supported infrastructure projects (e.g. highways) have impacted negatively on water resources and aquatic ecosystems (e.g. damage to wetlands). Development patterns, indirectly driven by the Funds (e.g. urbanisation or coastal tourism development), increase water demand and cause water pollution, hence, intensifying pressures on scarce resources. Furthermore, the Funds have supported infrastructure works such as water transfers, dams, networks, etc., indirectly subsidising the cost of water and serving to maintain unsustainable supply-side management practices. Certain projects have had important ecological impacts and have contributed to the overuse of local water resources. However, following recent reforms (see below), the Funds have started targeting also alternative IWRM or environmental conservation projects.

EU water policy may potentially impinge on the cohesion and development of lagging regions, the main objective of regional policy. The WFD foresees a gradual elimination of subsidies and cross-subsidies of water users. Unless counterbalanced by other measures, this may impact negatively on cohesion by worsening the condition of poorer users or regions (WRc, 2001). Furthermore, EU water Directives entail significant implementation costs and investments (for drinking and wastewater treatment, establishment of monitoring infrastructures, funding of new agencies and planning procedures, etc.). Relative to the more developed regions, lagging regions are typically in worst “initial positions” for implementing water directives. On the other hand, the relatively better condition and higher assimilative capacity of their environment may reduce investment requirements. The verdict, therefore, of the impact of EU water directives on cohesion is ambivalent (WRc, 2001).

3.3 EU Agricultural Policy

The CAP is the most important policy of the EU in expenditure terms (55% of EU budget in 1998 to decrease to 46% by 2006). Upon its formulation, in 1958, the CAP purported to assure fairly-priced food supplies for European peoples and at the same time to provide for sufficient incomes for farmers. In the face of vast overproduction and environmental problems, its attention gradually shifted towards a more spatial and less-sectoral outlook, to the development of rural space. This shifting attention to rural development, the second pillar of the CAP, was put forward in the 1996 Agenda 2000 reform and affirmed by the current Rural Development Regulation (RDR), which provides for the coordination between rural and regional development instruments and the implementation of a spatially defined rural policy. If the proposals for a new RDR (CEC 2004) are finally approved and put forward, the rural development element of the agricultural policy will be strengthened, but direct coordination with regional policy will be disrupted; rural development policy will be financed by a specially-set instrument, alongside the first pillar of the CAP (direct price and income support).

The main instruments of the CAP are price and financial supports. Procedural regulations govern the allocation and monitoring of funds. Until 1992, the CAP market policy relied almost exclusively on price support mechanisms for products, combining high border protection, export subsidisation and intervention buying at guaranteed prices in the internal market. Price support and guarantees have stimulated capital investment and intensification of production. Market and price support are provided by the Guarantee section of the EAGGF, the financial instrument of the CAP, which is managed by DG-Agriculture. Support is decided on a per product basis through Common Market Organisations (CMOs). About 60.5 per cent of total support of the Guarantee section to producers concerns market prices and the remaining 39.5 per cent is direct payments (23 per cent based on area planted and animal numbers, 8 per cent on input use, 3.5 per cent on output and 5 per cent through other payments) (Chatelier and Daniel, 2001). The Guidance section is managed through national CSFs and follows the implementation procedures described previously.

Rural development policy is defined in the Rural Development Regulation (RDR) (CEC, 1999b). The related expenditures account for about 10 per cent of the total CAP budget. There are two basic strands of rural development measures: (a) measures for restructuring the agricultural sector and supporting areas with natural deficiencies (agri-environmental, young farmers, compensatory allowances, etc) and (b) measures for the development of the rural economy, targeting sectors other than agriculture, including forest management, early retirement, agro-tourism, Less Favoured Areas (LFAs) and areas with environmental restrictions. For Objective 1 regions, the latter are financed through the Guidance section of the EAGGF, and are designed and implemented under the aegis of the regional policy regulation; they take the form of OPs integrated in the relevant national CSFs. The former are detached from regional policy implementation and their application is independently managed by agricultural authorities; they follow the programming principle, though, and are prescribed in 7-year Single Programming Documents. The division between the above measures and the associated implementation procedures and requirements are differentiated on the basis of the classification of assisted regions. The RDR defines principles, administrative and financial provisions, a format for the preparation of the aforementioned programmes, provisions for public participation, transparency, etc.

In the rural regions of the southern MS, agriculture is by far the largest consumer of water and one of its most important polluters. Pesticides, fertilisers and heavy metals from sewage sludge and manure application affect groundwater and surface water quality. Land drainage from farming causes wetland destruction. Intensive water abstraction for irrigation lowers groundwater levels and reduces surface water flows. Soil sediments modify the morphology of water courses and wetland ecosystems (EC, 2003b). These pressures are due to agricultural intensification driven primarily by the price/market support measures of the CAP, that are mostly approved on the basis of land area and production levels, thus, encouraging intensification and spatial expansion of production. The CAP has sustained and intensified the production of water-intensive crops in water-short Mediterranean regions. CAP subsidies indirectly favour irrigated crops through higher payments¹, thus providing strong incentives for continued use of irrigation over rainfed agriculture. Compensatory allowances are allocated using land area criteria. Funding for the modernisation of enterprises is oriented, almost exclusively, towards the utilisation of capital-intensive techniques. Furthermore, the CAP (and other regional funds) have subsidised investments in waterworks (reservoirs, irrigation networks) that have maintained a low cost of water for users, and may have played a role in the overuse of water resources.

Environmental, and especially water-related considerations, have been, at least partly, behind the gradual reform of the CAP from price support to single, decoupled income payments per farm, and from market support to structural adjustment and rural development programmes. Investments in agricultural holdings, training, LFAs and agri-environment measures (AEMs) have the potential to contribute positively to water resources management (EC, 2003b). The budget of these measures, however, is still very small compared to price supports.

EU water policy may bear important implications for agricultural and rural development. The “polluter pays” and the “user pays” principles mark an (indirect) change in the property rights of farmers. Land ownership is decoupled from the, until recently *de facto*, right of farmers to use their land and its resources (including groundwater) without limitations. If the WFD is implemented properly, farmers will have to obtain permits for using water or for applying agrochemicals that pollute water courses. The reduction of subsidies and the increase in the proportion of cost recovered by charges put forward by the WFD will most probably increase the cost of water, and, hence, production costs for most farmers. The WFD and the Nitrates Directive also demand significant farm level investments to implement good agricultural practices. Leaving aside the debate of whether such investments will pay off in the longer-term, in the short-term at least they increase production costs and strain especially smaller farmers who operate under marginal profits (if not losses).

4. SUBSTANTIVE INTEGRATION

Three aspects of substantive integration are examined below; policy problem and theories, policy object and policy approach/intervention style.

¹ As they continue to be paid in proportion to productivity per hectare

4.1. Policy problem and theories

Referring to *the* theory (or theories) underlying a certain policy can be misleading. Several (even contradictory) theoretical ideas may coexist in a single policy. Policies evolve over time, accumulating several different ideas. Implementation also matters significantly; political and ideological conditions, often with their own theoretical background(s), influence the “translation” and realisation of policies. Theories are not monolithic either. Names attached to certain theories often do injustice to the plurality of ideas and the diverse viewpoints held by different scholars. On the other hand, analysis requires a certain degree of simplification. Being aware of the limits of such generalisation, the following discussion makes an attempt to identify broad trends in some very basic theoretical underpinnings of the three policies. Note that this is not based on an empirical analysis of the actual theoretical ideas that influenced policy makers when drafting or implementing the policies, but on a “reading” and understanding of policies and their relations to broad theoretical paradigms, especially those concerning the relationship between development and environment.

Early EU water, regional and agricultural policies had very different origins. Table 1 summarises the broad problems addressed and remedies put forward by each policy. Problems addressed by the three policies were disconnected, indicating the strong policy sectorialisation at the early stages of the EU. The three policies also were – implicitly - endorsing very different views of problem-response relationships. Whereas water policy viewed economic development as the source of the problem (pollution) that had to be controlled, for regional and agricultural policy it was the response to their problem.

Table 1: Perceived problems and remedies in early EU water and development policies

EU Policy	Problem	Remedy
Water	Health impacts from pollution Market distortion and “race to the bottom” from different national quality standards	EU-wide water quality standards
Regional	Regional disparities, lack of cohesion	Supporting the economic development of laggard regions
Agricultural	Food sufficiency	Supporting the economic development of the agricultural sector

With the danger of oversimplification, one might relate early EU water (and more generally environmental) policy to what the literature calls “ecological”, “limits” (de Graaf et al, 1996, Norgaard, 1995) or “closed economy” (Daly, 1999) paradigm. This paradigm sees human activity bound within environmental limits which when superseded have impacts that may limit development (Kallis, forthcoming).

In comparison, early regional and agricultural policies were characterised by a more “economistic” paradigm, emphasising output growth without sufficient recognition of natural resource or environmental limits. From this perspective, natural resources are considered important factors in the production and development processes. They are not seen, however, as being intrinsically limiting (as in the “closed economy” paradigm); with sufficient technology and investments, resources can be “developed” to contribute to economic growth (see, for example, the substantial provisions of early regional or CAP funding for capital investments in waterworks).

Recent policy developments, however, indicate some converging tendencies in the theoretical underpinnings of the three policies. EU water policy has moved away from its exclusive focus on qualitative environmental standards to embrace the broader goal of contributing to sustainable development. In policy terms, a pragmatic multi-dimensional interpretation of sustainable development has prevailed, emphasising the combination of multiple objectives; economic, social and environmental. For example, Engwegen and McLaren (1998) define sustainable development for operational purposes as a “new model of development which aims to pursue three objectives in such a way as to make them mutually compatible... first, sustainable, non inflationary economic growth, second, social cohesion through access for all to employment and a high quality of life and third, enhancement and maintenance of the environmental capital on which life depends”.

This interpretation of sustainable development is central in the notion of integrated water resource management and underlies the WFD. Right from its preamble, the WFD declares that it establishes the principles of a “sustainable” water policy and commits to a “sustainable management” of freshwater. The Directive is explicitly designed to combine environmental objectives (status objectives), social objectives (participation) and economic objectives (economic evaluation and cost-benefit justification of investments, pricing for efficiency).

Perspectives on economic development as reflected in regional and agricultural policies have also changed significantly, moving away from an exclusive emphasis on output and GDP growth towards a “new development” theoretical paradigm of a more qualitative, multi-functional and multi-purpose development process. Quality of the environment (including the aquatic) is recognised as a social welfare factor, instead of being subsumed under gross production output. For example, the SF regulation states that “the quality of the natural ... environment ... contributes to making regions economically and socially more attractive” (CEC, 1999a, preamble 6). The shift of EU regional funding from basic infrastructure to structural investments (education, innovation, etc.) parallels the shift in regional development theorizing towards qualitative, “non-infrastructure” development.

A similar trend is noted in the theoretical framing of agricultural policy with the adoption of the concepts of “rural development” and “multifunctionality of agriculture”. The former has shifted the focus from agricultural production growth to the development of rural space as a whole, and in particular the fulfilment of social goals such as reducing poverty and inequality. The latter that has influenced several EU policies (van Dijk, 2001) emphasizes the economic, social and environmental benefits from well-functioning rural economies. The Berlin European Council on the reform of CAP has declared that the aim is to “secure a multi-functional, sustainable and competitive agriculture throughout Europe, including regions facing particular difficulties ... [and to] ... maintain the landscape and the countryside, make a key contribution to the vitality of rural communities and respond to consumer concerns and demands regarding food quality and safety, environmental protection and maintaining animal welfare standards”². These views on development embraced by regional and agricultural policy indicate a convergence with the conception of

² Berlin European Council, Presidency Conclusions, 24-25 March 1999.

sustainable development as a multi-functional process combining economic, social and environmental factors.

Unlike, however, the older, straightforward output-based notions of development, the meaning and practical interpretation of a multi-dimensional, sustainable development are much more ambiguous and contested. The expectation that different objectives can be compatible is no guarantee that they *are* really compatible, not at least in all instances. Indeed, real life is replete with situations where there are no “win-win” possibilities, and hard trade-offs and sacrifices have to be made by some for others to gain benefits (Kallis and Coccossis, 2004).

Decisions over water transfers in southern Europe, for example, have tested in many cases the limits of commitment of the EU to sustainability and integration. A water transfer benefits the recipient region but imposes costs on the source region. Whereas agriculture in the recipient region may benefit from the increased supply of water (contributing to the avoidance of desiccation and land abandonment, and, therefore, potentially reversing phenomena of desertification), the source region incurs ecological damages and reduced economic opportunities. Striking trade-offs between the economic, social and environmental goals of different regions, or between people and ecosystems, is not a matter of rational analysis and “objective” decision making; it involves deeper issues of justice and of reconciling different value systems. The failure of the EC to deal effectively and unambiguously with such confrontational projects is not only a matter of lack of administrative coordination between the various DGs but owes to the very substantive limits of concepts such as “sustainable development” and “integration”.

Agricultural supports are another illustrative example of important trade-offs and contradictions between economic, social and environmental goals and perspectives. Economic and environmental goals emphasise the need to make polluters and users (in this case, agricultural producers) pay the full cost of resource use. Several issues, however, arise and limit the implementation of this sound, theoretically rule. Paying the full cost of water may have important income and distributive implications on farmers, which, in turn, raises some important questions of *social justice*. In the past, farmers were providing, at least partly, a social service in guaranteeing national food security, enjoying, thus, many “privileges”. Now that food security is no longer essential, removing supports may be to an extent both unfair and risky (what if global markets collapse in the future?). Furthermore, it is not always clear to which extent farmers should pay for cleaning up a river, or instead urban water users who wish to enjoy higher levels of drinking water quality and safety should cover this cost. As a result, in practice, the issue of whether the polluter should pay or should be compensated not to pollute remains unresolved and decided on a case-by-case basis.

The above two examples illustrate that beneath the surface of some a-politicised definitions of concepts such as “sustainable regional development” or “rural development” may still lie different, irreducible values, perspectives or world-views on *how to* settle trade-offs between issues of economic efficiency, environmental protection, and social justice. Inevitably, these resurface when making decisions or implementing policy; it is then that the integrative spirit of sustainable development faces its test, and often breaks down. Procedural mechanisms enabling to deliberate

and coordinate the settling of different objectives and trade-offs become thus important.

Substantive integration is an important goal and the theoretical convergence of EU water and development policies, even if only in rhetoric, is an evidence of improvement in the perspective of their integration. The above discussion suggests, however, that a full integration in the form of a single theory of development guiding water, regional and agricultural policies is elusive. More importantly, it is not necessarily desirable. Pluralism and “dialogue” between different theories may be a more effective means towards policy integration as will be argued in the concluding section of this paper.

4.2. Policy object

Early water, agricultural and regional policies had very different objects: resource, sector and territory, respectively. Water policy focussed on the quality of the resource for specific uses, agricultural policy on the development of the sector and on farmer income support, and regional policy on regional economic development. These very different policy objects evidently made integration efforts more difficult.

Recent policy changes, however, have seen a process of *territorialisation* of water and agricultural policy bringing them closer to regional policies, and creating more opportunities for synergies in implementation (Moss, 2003). Water policy operates now at the river basin scale. Agenda 2000 emphasises regional cohesion as a key goal of agricultural policy and commits to the structural support of (rural) regions facing difficulties. Rural development policy marks a gradual (although hesitant) shift of the CAP from a sectoral to a territorial approach.

This convergence is not complete yet; important elements of divergence still exist. RDR accounts for a minor portion of CAP outlays; farm-based supports absorb the majority. Moreover, not all RDPs are region-based; MS may design national-sectoral plans open to proposals from individual farmers.

A second case of divergence is between regional and water policy. Regional policy employs administrative regions based on the NUTS system. River basins instead follow hydrological boundaries. The two policies, therefore, address different spatial systems of reference, a misfit not necessarily negative. Moss (2003) observes: “the replacement of existing institutional units by institutions oriented around biophysical systems will inevitably create new boundary problems and fresh mismatches”. Perfect spatial system compatibility is elusive. Moss (2003) argues in favour of a constructive “institutional interplay”, whereby the problems of imperfect matches are overcome by formal and informal processes and mechanisms which facilitate coordination and integration.

4.3. Policy approach/intervention style

The changes in the objects of all three policies identified above are paralleled by a similar trend in changing policy styles from top-down, “command and control” to bottom-up, procedural and network-based approaches (Moss, 2003). Early EU water policy was based on the establishment of EU-wide regulatory standards with which

MS had to comply. The WFD instead regulates primarily procedures (river basin planning and management, participation, licensing, etc.), following a network-based, multi-partnership implementation approach (e.g. Common Implementation Strategy, River Basin Councils, etc.).

These policy changes at the EU level are driven by the binding “principle of subsidiarity”. Subsidiarity, a mandate for decentralisation which maintains an important coordinative role for the EU, is a compromise between “federalists” and “anti-federalists” in the debate over the future of the EU. Recent environmental and water policy analyses recognize that there are no uniform policies applicable to all contexts, and that it is more effective to adapt goals to local conditions and needs (Ward et al., 1997; Collier, 1997).

All three policies contain clear statements of commitment to the principle of subsidiarity. The WFD states that “decisions should be taken as close as possible to the locations where water is affected or used” (CEC, 2000). River basin management expresses the decentralisation approach of the Directive. So does the provision to differentiate ecological quality standards depending on the type of water body. Similarly, the RDR states that “rural development policy should follow the principle of subsidiarity ... [and be] ... as decentralised as possible ... [with] ... emphasis on participation and a bottom-up approach” (CEC, 1999b). Regional policy has long made this decentralisation shift through its programming structure, whereby powers of decision and implementation are delegated to MS and regional authorities. The SF regulation calls for “partnerships to be strengthened” and for a “decentralised implementation of the operations of the SFs by MS” (CEC, 1999a).

In terms of policy integration, the decentralization trend has both positive and negative aspects. The EU has assumed a supervisory role, limited to procedural regulation and coordination, in all three policies. The positive aspects of partnership-based implementation have been documented both for the SFs (Roberts, 2003) and for water resource management (Moss, 2003), in the case of northern, more developed MS, however. On the other hand, a more centralised control of policy implementation could create a more solid ground for the integration of EU policies. Decentralisation and the devolution of EU powers to lower organizational levels weaken an already weak EU capacity to control actual outcomes, hence threatening integration during implementation. This is particularly disquieting for the southern MS, where the old “modernisation” paradigm still dominates, new development and environment ideas have yet to trickle down and there are concerns that the lack of effective monitoring and control by the EU distorts the proper implementation of both water standards (Ward et al., 1997; Kallis and Butler, 2001) and regional development programmes (WWF, 2003).

5. INTEGRATION OF POLICY GOALS AND OBJECTIVES

Two issues are examined with respect to this criterion: (a) whether the goals of the different policies are congruent and compatible and/or exhibit commonalities and (b) whether integration of EU water policy with other policies is a policy goal.

The previous discussion of substantive integration showed that the early goals of all three policies were highly divergent, addressing environmental limits (water policy), social and economic cohesion (regional policy) and food sufficiency/sectoral output growth (CAP). Recently, a hesitant convergence is noted among their goals under the rhetoric of multi-functional, sustainable development and the injunction of Article 6 of the Amsterdam Treaty, asking for the integration of environmental considerations into sectoral policies, although this includes no separate reference to water as such. However, this convergence is rather superficial, stated in the abstract and far from complete. Important underlying, partly irreconcilable, differences remain as to how each policy perceives and operationalizes the grand goal of sustainable development as well as the actual relationships of its goals with those of other policies.

All three policies take up and refer to the goal of integration. The WFD stresses the importance of “further integration of protection and sustainable management of water into other Community policy areas such as energy, transport, agriculture, fisheries, regional policy and tourism” (CEC, 2000, preamble 16). Moreover, it recognises that water policy should take into account “the economic and social development of the Community as a whole and the balanced development of its regions as well as the potential benefits and costs of each action” (ibid, preamble 12). Regional and agricultural policies also refer to the need for integration of environmental goals (which include water). The SF regulation states that in “its efforts to strengthen economic and social cohesion the Community also seeks to promote the harmonious, balanced and sustainable development of economic activities ... and a high level of protection and improvement of the environment” (CEC, 1999a, preamble 5). However, sustainable development *per se* is not the goal of regional policy. The RDR defines as its objective “the preservation and promotion of a high nature value and a sustainable agriculture respecting environmental requirements” (CEC, 1999b, Art. 2). Rural development goals are also tuned to those of regional policy; rural development measures should “take into account the specific targets of Community support” set in the SF regulation (ibid, Art. 1).

Summing up, it seems that the goals of one policy are “added” on, rather than “fused” with, the goals of another. Calls for integration are not taken up rigorously by specific policy provisions or policy implementation plans with defined objectives, targets and programmes/timetables of implementation. EPI is mostly stressed and not horizontal integration of environmental, water policy in this case, with development policies. In particular, the integration of the WFD with development policies is not an explicit policy goal, a fact owing partly to its appearance at a latter date (2000) than the other two policies.

6. INTEGRATION BETWEEN ACTORS AND POLICY NETWORKS

The EU policy process is best described as “a multi-national, neo-federal system, extremely open to lobbying by a wide variety of organisations with an unpredictable agenda setting process creating an unstable and multi-dimensional policy-making environment” (Richardson, 1997: 140). A rather messy amalgam of interrelationships between formal institutions and non-governmental actors exists. EU policy networks evolve continuously, their composition changing as EU expands its competences in new areas and as the effects of EU policies are realised on the ground, motivating

actors to intervene at the European level. Even relationships among the key EU institutions are not settled and are redefined with each round of Treaty reform.

A general structure of EU policy networks comprising formal EU institutions, economic actors, non-governmental organisations and experts is valid more or less for all EU policies. However, the nature and composition of the networks of different policies vary widely. EU water policy networks have been described as open rather than closed and more “issue-driven” rather than part of a stable “policy community” (Kallis and Nijkamp, 2000; Richardson, 1997). This, however, reflects more the pre-WFD period, where different actors and coalitions were motivated around each of the water directives, with their different scope and area of intervention. A more stable, albeit still open, water policy network emerged around the WFD, reflecting its broader coverage and implications, the long period (almost seven years) that its preparation and negotiation lasted, and the development of the Common Implementation Strategy (Kaika, 2003). EU water policies include a wide range of non-institutional actors from industry, trade unions, citizens organisations, etc. The role of scientific experts is important in view of the extensive use of *ad hoc* committees by the EC to support its legislative functions, and especially the establishment of several working groups, as part of the CIS, that have been particularly open to newcomers and environmental NGOs.

These trends confirm Richardson’s (1997: 142) prediction that “the more there is an attempt to coordinate environmental policy (including water policy) with other sectors such as regional development and agriculture, the more the process will shift from a narrowly-based set of actors to a more extended network of actors”. Several development actors (agricultural interests, trade unions, regional authorities, industries, etc.) have taken an active role in the process of formulating and implementing the WFD.

However, while the WFD policy process seems to provide an arena for more interaction among actors and, hence, favouring PI, this seems a “one-sided” opening, not followed by analogous developments in regional and agricultural policy networks which, especially the latter, remain closed. The agricultural policy network forms around DG-Agriculture, the Council of Ministers of Agriculture and the major Farmers Unions. Both at the MS and the EU level, these actors have been exceptionally resistant to change. Environmental interests and NGOs have a marginal role (Lenschow, 2002). The rigidity of the network has limited opportunities for fundamental CAP reform in practice despite the radical rhetoric of EC policy statements (Daugbjerg, 1999). The same can be said for the regional policy network. Governments have a much tighter grip on the process, than in water policy, as the allocated funds provide an important source of revenue for national economies. Environmental NGOs intervene actively, especially when the funding of environmentally controversial projects is at stake, but their role is mediated mainly through the arenas of environmental policy and DG-Environment.

Lack of integration among the policy networks at the EU level partly reflects the lack of coordination in national administrations. Ministers of Environment represent MS in water policy, whereas Ministers of Finance in regional policy and Ministers of Agriculture in the CAP. Ministers of Environment typically have a weak role in the national cabinets, especially in the southern MS. Drastic reform (such as the WFD)

agreed at an EU level meets the opposition of other sectoral policies at the national level of implementation. As Richardson (1997) notes for water policy “it is relatively easy to sign up to new regulations, in the knowledge that there are so many opportunities for policy erosion at the implementation stage that it is not worth the risk of being seen as bad European by opposing the process of European integration”. This is particularly true for the WFD which includes many ambiguous definitions leaving many legal loopholes that can be exploited by MS unwilling to shoulder implementation costs (Kallis and Butler, 2001).

Actors involved in policy implementation at the national and regional level are different from those involved in EU policy making. There is often limited interaction between policy formulation and implementation actors, especially in water policy, reducing the degree of cross-scale integration and contributing to implementation failures. However, this is subject to change as implementation actors come to realise the importance of EU policies and organise more at a European level (Richardson, 1997) and the EU expresses its intention to promote dialogue among actors from all spatial levels (EC, 2004a).

The network-based approach of recent EU policies creates more opportunities for environmental NGOs and under-represented interests to make their voice heard during implementation level. Regional policy regulations, for example, provide for the participation of NGOs in the MCs of the OPs, while the proposed reform of the SFs establishes the creation of wide partnerships (potentially including NGOs) for the designation of plans and programmes (EC, 2004b). The new proposed regulations also set out to institutionalise an annual consultation of the Commission with NGOs regarding the implementation of programmes (CEC 2004). Similarly, the WFD demands the active participation of all interested stakeholders in the formulation and implementation of the RBPs. This might lead to an opening-up of both regional development and water policy networks, which in some southern MS are notoriously closed, dominated by government, engineers, construction and producer interests. Reality, however, is still far from rhetoric. In the implementation of SF, the inclusion of stakeholders and social partners in consultation and monitoring procedures is limited and construed in a way that leaves much to be desired. This has been clearly identified in the ex-post evaluation of the Structural funds for the 1994-99 programming period (ECOTECH 2004), and for the case of environmental NGOs, there are indications that this continues to be the case during the current programming period too (WWF Adena 2003, Liarikos 2004). Similar conclusions are echoed in an EEB study (2004) on progress in the implementation of the WFD which finds the situation “disappointing”, most notably in southern MS.

7. PROCEDURAL INTEGRATION

Three issues are singled out for examination here: cross-compliance, planning provisions, and financial and economic instruments.

7.1. Cross-compliance

“Cross-compliance”, referring to compliance of EU-funded actions with environmental (including water) policies, provides an important mechanism for

integrating water policy provisions in regional and agricultural policy. Article 12 of the SF regulation states that “operations financed by the Fund ... shall be in conformity with ... Community policies and actions ... on environmental protection” and Article 26 declares that “major projects” (exceeding 50 MEuros) will be judged by the EC, among other factors, on the basis of whether they comply with other Community policies (CEC, 1999a). Likewise, the EAGGF regulation refers to cross-compliance with environmental regulations, demanding that MS set out verifiable standards entailing compliance with general mandatory environmental requirements and good farming practices in their RDPs (EC, 2002). Although the cross-compliance provision does not specifically address water policy, it is a definite improvement over past practices, where projects funded by the CAP or the SFs constituted some of the most important violations of Community law in the southern MS.

CAP reforms agreed in 2003 and due to be implemented beginning January 1st 2005, introduce a single decoupled payment per farm. Cross-compliance which was a voluntary requirement and only for set aside payments since 1992, hitherto becomes compulsory for all payments; all farmers receiving direct payments from CMOs should in principle comply with all statutory EU water standards (EC, 2003b).

In principle, DG-Regio and DG-Agriculture should not fund projects that contravene existing water directives. The role of DG-Environment is to inform these DGs on projects that do not comply with environmental regulations. The main instrument for checking the impacts of projects on the environment (including aquatic and wetlands) is the legal requirement for an Environmental Impact Assessment (EIA). Specific administrative procedures have been established allowing the EC services to assess the environmental compatibility and conformity of the evaluation process in the EIA conducted in the MS (Nychas, 1998). An EIA is demanded *ex-ante* by the EC as a pre-requisite for funding “major” and CF projects. In certain major and controversial water projects (e.g. big dams, transfers, etc.), the EC has also asked some MS for a Strategic Environmental Assessment (discussed below).

The SF regulation demands explicitly to incorporate in OPs and regional plans “an ex-ante evaluation of the environmental situation of the region concerned, in particular of those environmental sectors which will presumably be considerably affected by the assistance; the arrangements to integrate the environmental dimension into the assistance and how far they fit in with existing short and long term national, regional and local objectives; the arrangements for ensuring compliance with the Community rules on the environment. The ex-ante evaluation shall give a description, quantified as far as possible, of the existing environmental situation and an estimate of the expected impact of the strategy and assistance on the environmental situation” (CEC, 1999a, Art. 41b). Ex-post monitoring of environmental indicators following OP implementation is also foreseen (*ibid*, art. 36). Similarly, RDPs should include an “appraisal of the expected ... economic ... impacts” and a definition of quantified indicators for evaluation (CEC, 1999b).

The 2001 SEA Directive has strengthened the provisions for ex-ante environmental evaluation of programmes (CEC, 2001), asking for an environmental report to accompany government plans and programmes, containing relevant information on the likely significant effects of implementing the plan or programme together with an examination of reasonable alternatives. Water management is one of the areas for

which SEA is mandatory. The Directive requires a comprehensive assessment of possible environmental impacts, especially with respect to standards set by EU legislation. Importantly, SEA is mandatory for “plans and programmes co-financed by the European Community” and should be prepared and approved before the formal submission and approval of the plan.

The breadth of “cross-compliance” has been expanded in practice by the EC which, in some cases, has made general support to a regional OP conditional upon compliance with environmental directives. DG-Regio has withheld funds from some regions that were not properly implementing the Habitats, Nitrates and Wastewater directives. This, however, has concerned mainly gross breaches of Community law and has been implemented in a partly *ad hoc* and inconsistent manner by the EC (WWF, 2003)³.

Evidently, the afore-mentioned provisions in recent SF and RDR regulations contribute to a relative increase in the integration of water management objectives into development policies. Still, there are many gross deficiencies. Despite the provision for cross-compliance, the actual coordination mechanisms between DG-Environment, DG-Regio or DG-Agriculture are far from effective. Drawing on the example of the controversial Spanish National Hydrological Plan (NHP)⁴, WWF (2003) observed that there are “differences in analysis between DGs and delays as regards drawing clear conclusions and decisions to initiate infringement proceedings”. In recent years, several controversial grand scale waterworks and transfers, similar to the NHP, have been petitioning funding from the SFs or the CF (e.g. the Acheloos diversion in Greece or the Alqueva dam in Portugal). The EC has responded by consultation procedures between DG-Regio and DG-Environment and the establishment of committees to assess whether the works contravened Community law. SEAs were demanded from applying MS and assistance from external experts in assessment was sought. However, these processes were far from transparent or accountable to outsiders and the public. Key procedural issues, such as the selection of experts, the setting up and decision rules of committees, consultation and resolution of differences between experts or between DGs, appraisal of the scientific content of the SEAs, etc., are unregulated and developed by the EC on an *ad hoc*, case-by-case basis. This situation far from satisfies the criterion of procedural PI.

The implementation of ex-ante environmental evaluation tools is often far from satisfactory. Studies on SF implementation in Greece document that ex-ante environmental profiles in the CSF and the OPs are limited to simplified descriptions of the state of the environment in the region and a definition of very general environmental goals that are obviously insufficient for guiding policy implementation (Liarikos, 2004). The legal requirement for a mandatory SEA marks a definite improvement. However, the guidelines provided for environmental profiling and for conducting an SEA of the plans are optional and not mandatory and the exact procedures to be followed are not specified precisely neither any standards for assessing the validity of the process (c.f. the EIA directive which provides a very

³ A 1992 Court of Auditors report was highly critical of the lack of coordination between DG-Environment and DG-Regio, producing many examples of contradictory policies being pursued by the two DGs, some concerning water (Court of Auditors, 1992 quoted in Richardson, 1997).

⁴ Initial plans (now dropped) included several dams and a major inter-basin transfer, probably contravening both the WFD and the Habitats and Birds directives, and were submitted to DG-Regio for co-financing.

specific process blueprint). Research on past major water projects requiring an SEA reveals many problems with the practice of assessment such as consideration of limited and pre-defined alternatives, political manipulations, poor use of science and limited participation (Antunes et al., 2002). The more “programmatically” (rather than project) nature of OPs or RDPs may make the application of SEA even more difficult and subject to manipulation.

Much of the responsibility to check cross-compliance is delegated to MS following the subsidiarity principle. Often southern MS see environmental rules as constraints imposed by Brussels, rather than as considerations to be integrated in development programmes. “Tricks”, such as breaking major projects into several smaller ones to avoid the requirement for an ex-ante EIA/SEA, are often used (WWF, 2003). “Whistle-blowing” from environmental groups can draw the attention of the EC in cases of law violations. However, due to the limited resources of both EC and environmental NGOs, attention focuses only on “big” and emblematic cases (such as the Spanish NHP). Several smaller regional projects, however, may contradict the goals of water policy.

Whereas cross-compliance with quality standards is relatively straightforward, checking cross-compliance with a framework directive such as the WFD is a more complex task. For example, the impact of a single farm on the status of a water body cannot be isolated from the impacts of other polluting activities. Indeed, the WFD is not included in the statutory obligations upon which farmers’ compliance should be appraised. Cross-compliance will, therefore, need to refer to standards or restrictions set by national laws transposing the WFD or by the specific standards and rules set by the RBAs and RDPs. In many southern MS, however, there are concerns that laws and plans will never go so far as to pose real limitations on farmers. It is not clear whether and how cross-compliance provisions can be applied by the EC since it has neither a reference framework nor an objective assessment mechanism. In theory, the requirement of “good farming practice” can provide a benchmark upon which to judge general farm compliance. Still this is much less specific than exact qualitative or emission standards; clear guidelines are needed on what constitutes “good practice” and for a variety of cases/contexts.

However, essential PI requires much more than mere regulatory cross-compliance. WWF (2003) notes for the older, Nitrates directive that “work on the cross-compliance mechanism has resulted in funds being withheld in certain cases but did not lead to a comprehensive strategy to integrate the directive’s requirements with regional development plans”. Development policies produce broader socio-environmental change. The SEA and the environmental profiling requirement, as they stand now, seem limited in addressing the longer-term implications of development policies for the aquatic environment.

7.2. Planning provisions

The decentralisation and territorialisation of EU policy implementation and the emphasis on programming (SFs and RDPs) and planning (WFD) suggest that programme/plan preparation is a key mechanism for procedural PI. The EU cannot control the outcome of these activities, but sets procedural requirements that can foster integration, such as the mandates for public consultation in the design of

regional and rural programmes and for including environmental actors in committees and project partnerships. However, until now participation of environmental actors in the design and implementation of regional programmes has been limited to formal actors, such as Ministry of Environment representatives. Their role in the process has been marginal, reflecting their limited power in national administrations. Consultation with environmental and citizens groups has been at best *ad hoc* (for the case of Greece, see Liarikos, 2004).

River basin planning provides a key platform for PI. As the preparation of RBPs has just started it is early to assess the extent to which development and water management goals will be integrated in the process. The following discussion explores some of the opportunities and potential problems for PI.

The WFD is designed so as to integrate water-related goals into development decisions. Integrated river basin planning and management are the main vehicles for this. First, all new major developments in a river basin that may affect the condition (status) of water bodies and aquatic ecosystems should be authorised and included in the RBP (CEC, 2000). Clear justification should be given when being exempted from the requirements of the WFD. Authorisations are explicitly needed for water abstractions or impoundment works (dams, transfers, etc.); controls may be applied if these affect negatively the water body or result in groundwater over-abstraction causing “significant” damage to dependant terrestrial ecosystems. Similar authorisations and controls can be required of polluting activities or changes that may affect the hydromorphology of a river (e.g. drainage works, land use changes, etc.). Most of the physical interventions funded through the CSF or the CAP will require such authorisation and inclusion in the RBPs. This comes on top of requirements for cross-compliance with existing water and environment directives.

Second, river basin planning is an open process. The broad participation of stakeholders provides a procedural arena in which various water management and development interests can debate policies and decisions. Many MS have established permanent river basin Councils with multi-stakeholder composition (with varying degrees of decision-making power) and also foresee wider consultation processes for the authorisation of plans or specific decisions/authorisations (EEB, 2004).

The reverse integration, i.e. of development policy goals into water management decisions, is less explicit. Permitting derogations from environmental objectives on cost grounds is an indirect form of integration. The EC recognised that the WFD could not go as far as institutionalising water (and the aquatic environment) as *the* limiting factor to development. Strictly adhering to a “no deterioration” principle would practically mean an end to all physical development projects. A more pragmatic approach was to define desired environmental objectives in broad classes (“status”), prohibiting in principle deterioration of status (not individual standards), and allowing a certain degree of freedom to RBAs in judging when derogations can apply on economic grounds (Kallis and Butler, 2001). The WFD provides that MS may aim to achieve less stringent environmental objectives when their achievement is “infeasible” or “disproportionately expensive”. Similarly, waterworks or other physical interventions with negative impacts on the aquatic environment are allowed when the reasons are of “an overriding public interest” and/or the benefits of the new modifications to human health and safety or to “sustainable development” outweigh the benefits to the environment and society from the environmental objectives.

“Sustainable human activities”, a term whose interpretation is left wide-open⁵, can also be allowed even if environmental standards are violated, as long as the benefits of the projects outweigh the costs of violation.

The stance of the EC is that, according to the principle of subsidiarity, deciding on derogations and the development-environment trade-offs they entail cannot be resolved from the “top”; they have to be debated at the river basin level with the procedural tools provided by the WFD, benefiting, hence, from a procedural integration of different actors and their perspectives. There are, however, concerns on how the actual procedures (e.g. Councils, public consultation, etc) will work in practice. For example, the Spanish NHP, despite its clear breach of some water and environment directives, was approved by both national and river basin water Councils, reflecting the dominant influence of the composition of the Councils (government official and economic interests) (Kallis, forthcoming). “Conversation” between policies and competing interests, that is, depends on the real democratisation of the decision process.

Apart from constraints, there are also potential positive synergies between river basin planning, SF programming and RDPs. Several environmental measures funded by the SF or the CAP, for example, can contribute to the achievement of river basin goals (e.g. AEMs) and (should) be included as part of the river basin “programme of measures”. Good farming practice codes are also a shared instrument between agricultural and water policy. In agricultural policy, they are used to judge on the compliance of farmers receiving support. In water policy, they are mandatory in nitrate-sensitive zones and supplementary in river basins where agriculture is a main source of pollution. A certain harmonisation between the requirements of codes as part of the two policies might be needed to avoid contradictions or duplication of efforts (EC, 2003b).

Despite the obvious interrelationships and synergies among the three planning processes there is no concrete EC initiative to push forward such procedural integration. A discussion paper by DG-Environment for the integration of the CAP and the WFD (EC, 2003b) suggests that competent authorities for rural and regional development should be involved in the drafting of RBPs and vice versa. Representatives should also have a more permanent position in related bodies (e.g. representatives of OPs partnerships having statutory position in RBAs and vice versa). The EC, however, concedes that it cannot prescribe the details of such integrative procedures because of the subsidiarity principle (EC, 2003b). Current experience with the incorporation of environmental goals and actors in SF implementation in southern MS suggests that such cross-representation of actors will be very difficult unless the EC provides clear guidance and a certain degree of commitment (WWF, 2003; Liarikos, 2004). There is a certain imbalance so far, as economic actors seem to dominate in the river basin planning process, whereas the opposite is not true for water and environment actors in regional and rural development planning.

7.3. Financial and economic instruments

⁵ Thought to refer, for example, to projects for navigation, clean energy production including hydropower, etc, although this is nowhere specified in the text.

EU regional and agricultural policies provide important complementary financial resources for the implementation of water policy, especially in southern MS, as the WFD does not have a corresponding financial instrument. The SFs can be used to co-finance some of the measures required to achieve “good ecological and chemical status” (WWF, 2003). Already, the SFs and the CF finance some investments that have positive impacts on water quality (e.g. construction of sewerage treatment plants). EC (2003b) identifies RDR measures that can contribute to the achievement of the WFD objectives: “investment in agricultural holdings” can subsidise procurement of water-friendly equipment; “setting up of young farmers” can provide aid to comply with WFD standards; “training” can be used to educate farmers on good farming practices; “early retirement” aid can be given to reassign agricultural land with negative impacts on water resources to non-agricultural uses; compensation can be given to farmers in LFAs facing restrictions due to WFD standards. The most useful measures for implementing the WFD, however, are the AEMs (EC, 2003b). These can contribute to good farming practices through reduced use of fertilisers, pesticides and water, protection of aquatic ecosystems, growing of catch crops and buffer strips along surface waters, etc.

However, the use of CAP and SF instruments to support WFD goals is incidental and much depends on the will of MS, regional authorities or individual farmers. PI can be enhanced by referring explicitly to the WFD in SF, the RDR or guidance documents and “earmarking” programmes or funds’ quota for the implementation of WFD measures (WWF, 2003; EC, 2003b). This would require more cooperation between the respective DGs and perhaps a delegation of powers to DG-Environment (directly or through inter-directorate committees) in the design of funding programmes and the rules and selection of eligible projects.

Past experience suggests that the actual use of funding instruments by MS may create important problems. Water investments, as part of environmental protection up to now, have focussed primarily on infrastructure works. These sometimes have negative environmental effects. For example, the CF has financed the repair and enlargement of the aqueduct of Athens, Greece, and the extension of the distribution network to the periphery as an “environmental investment”. This subsidisation may have acted, however, against a longer-term cautious, demand-side management of water for the city (Kallis and Coccossis, 2003).

Even worse, some MS have exploited environmental funds to finance conventional infrastructure works. For example, several small projects have been financed for the regeneration of Lake Karla in Greece as part of implementing the Habitats directive (and in line with the demands of the WFD for restoration). Critics, however, argue that these projects served to create a new reservoir for irrigating the surrounding area (that otherwise could not get EU support) (Liarikos, 2004). RDP measures such as reforestation have been used in some cases for planting water-intensive trees that do not fit the local landscape and go counter to water management objectives (Georgiadis, 2004). Good intentions for PI at the EU level may, therefore, dissolve during implementation. This points again to the trade-offs between the benefits and drawbacks of subsidiarity and decentralisation in the “growth-oriented”, southern European regions.

Although the WFD has an important procedural orientation, funding is available for physical interventions primarily. There are few provisions for financing procedures, such as public participation, river basin planning, etc. Funding is, however, necessary to support the effective participation of underrepresented groups (WWF, 2003).

Water pricing for cost recovery is an integrative economic instrument provided by the WFD and whose inclusion in the RBPs is mandatory. This includes “environmental and resource costs” in order to “provide adequate incentives for users to use water resources efficiently, and thereby contribute to the environmental objectives of the directive” (CEC, 2000, art. 9). Disaggregate pricing per user is foreseen, taking into account “social, environmental and economic effects of the recovery as well as the geographic and climatic conditions of the region” (CEC, 2000, art. 9). This “internalisation” of water and environmental monetised costs in the cost of development aims to integrate water policy objectives into development policies.

8. INTEGRATION OF EU WATER AND DEVELOPMENT POLICIES: A PLAUSIBLE EXPECTATION?

The picture emerging from the preceding analysis of the current status of integration between EU water and development policies is mixed. Positive signs that the process has started do exist but negative signs of difficulties encountered raise questions about the plausibility of expecting an enhanced level of policy integration in the mid-term (say next 10 years) especially amidst changing socio-political conditions. The key findings of the present analysis and the prospects for PI are discussed below in the light of recent policy changes. Suggestions for selected necessary improvements are offered.

8.1. Substantive and goal integration

There is a notable convergence in the theories and approaches to development underpinning the three policies and, by extension, a greater degree of compatibility between their respective goals. An increasing emphasis on sustainable development in water policy goes well with the focus of regional policy on qualitative, multi-faceted regional development and its renewed interest on environmental quality. There is also an ongoing, albeit hesitant, shift of agricultural policy from sectoral support to a broader, multi-objective rural development emphasising, among others, environmental protection. Decentralisation and territorialisation are noted in all three policies, opening more opportunities for horizontal coordination and integration at the implementation level.

Much of this progress remains superficial and fails to materialise on the ground, however, especially in “growth-thirsty” Mediterranean regions. Despite convergence under the apparent inclusiveness of new notions of (sustainable) development, in many cases important trade-offs between the goals of economic growth, social cohesion and protection of the aquatic environment are still made. This becomes evident at the EU level (e.g. financing of water transfers or agricultural supports), and much more, at the implementation level. Making sustainable development an explicit objective of regional and rural development policies would formalise conceptual convergence, but would not necessarily lead to more integrated implementation.

Much will still depend on the *interpretation* and *operationalisation* of sustainable development whose very nature defies monolithic interpretations, requiring instead procedures for mediating and harmonising different objectives and interests. This directs attention to the issue of procedural integration.

Territorialisation of the three policies also creates fresh mismatches and institutional misfits. Rather than recommending a deceptively perfect fit of the territorial and administrative levels of reference of the three policies, emphasis should rather shift towards providing flexible yet effective enabling mechanisms of cooperation and coordination between river basin, rural development and regional development planning and the associated administrative services.

In terms of policy approach, decentralisation, concentration on procedural (rather than substantive) requirements and the devolution of implementation responsibilities from the EC to the MS or the regional levels (subsidiarity) could, in theory, allow for more flexible and case-tailored implementation but may not necessarily lead to greater PI during implementation. Reality cautions against such undue expectations; Mediterranean MS often view environmental regulation and related restrictions as a burden imposed by Brussels and may seek to exploit the freedom given in the name of subsidiarity to water down implementation costs. A deficiency that should be addressed is the lack of concrete, detailed and binding guidance on the part of the EC on procedural requirements⁶ and the lack of related inspection mechanisms.

Finally, although the need for PI *per se* is recognised in the Union's Treaty and referred to, more or less explicitly, in all three policies, this is not so much a call for a comprehensive, horizontal and vertical, PI, but rather for the narrower EPI. Not one policy operationalises even the EPI goal into concrete objectives and actions. Existing internal EC documents on PI (e.g. EC, 2003b) could form the backbone for a more explicit and binding document on PI with concrete objectives, actions, implementation time-tables and funding provisions.

8.2. Procedural and actor integration

New procedural provisions and mechanisms provide enhanced opportunities for PI. Cross-compliance and inter-departmental mechanisms serve to limit the negative impact of EU-financed regional or agricultural developments on the aquatic environment. Such provisions could be further strengthened if cross-compliance applied not only to specific programmes and projects but also to the actual recipient (region, farmer, etc), i.e. binding all EU support to general compliance with environmental (including water) regulation. River basin planning and regional/rural development programming offer opportunities for multi-stakeholder interaction, hence, improving the prospects for actor integration. Moreover, the provision for consultation processes has provided opportunities for a gradual opening-up of previously closed and rigid policy networks

On the other hand, there are still considerable problems with the proper implementation of the cross-compliance principle. Some EC decisions for financing

⁶ E.g. for drafting river basin or rural development plans, independent mechanisms and indicators to assess the quality of the plans and the planning process

controversial water projects have generated criticism, however. The lack of an explicit, observable and transparent process of inter-departmental consultation and decision on such controversial projects is a major problem. Clear processes for deciding on cross-compliance should be established at the level of EU institutions, preferably in an official document, including definition of consultation and decision-making rules between DGs, clarification of the role of experts and committees, specific provisions for transparency of the decision-making process, concrete duties of the EC relating to the justification of decisions and right of access of the public and interested parties to information relating to the making of the decision.

The same deficit is observed at the implementation level. Few provisions exist to ensure the actual opening-up of planning/programming processes and especially the integration of water/environment objectives into regional and rural development planning. The EC could elaborate and define specific procedural requirements for SFs, CF, RDPs and RBPs as mandatory guidance to MS and accompany them with a strict checking of compliance. Furthermore, integration between the different planning processes could be strengthened by the preparation of a guiding working document by the EC (or by a Working Group as part of the WFD CIS) suggesting ways and tools to integrate the river basin, regional and rural development planning processes and outputs.

A notable improvement is the increase in regional and agricultural policy programmes and funds directed to environment-enhancing measures. However, it is important that such funding is directed to more specific and explicit EU regulation-related activities (e.g. funding to support specific implementation tasks of the WFD in the river basins) with a more active role of DG-Environment (e.g. in drafting WFD-targeting programmes in SFs and RDPs, approving and monitoring projects, etc.). It is essential also to tighten inspection and enforcement mechanisms to ensure that water-related regional or rural development programmes and projects actually deliver on the ground.

8.3. Expectations

All three policies are currently in a state of change. The WFD was transposed into national legislation in 2003 and the process of defining ecological standards and preparing RBPs and programmes of measures has just started (to be completed by 2009). The new CAP (2007-2013) should be agreed by 2005. In 2004, a mid-term review of the RDR will take place concluding with the approval of the new regulations in 2006. The next round of SFs for 2006-2013 will soon be decided.

If PI is to be seriously promoted, bolder steps than those presently taken are urgently needed in the coming policy reforms. These concern both substantive and procedural aspects since substantive differences can only be resolved through procedural mechanisms and vice versa; procedures can operate only on a minimum shared substantive framework of goals and objectives. Changes, therefore, should both promote an integrated vision of sustainable development, especially in rural, water-poor, southern EU regions, and enhance the procedural aspects of streamlining the horizontal and vertical linkages of EU and national level networks of formal and informal actors and of designing appropriate policy instrument mixes.

Whether such convergence will be achieved depends importantly on socio-political conditions. In particular, developments in the European integration process, as reflected in the debate over *subsidiarity*, and the approach taken towards economic development in relation to sustainability, two highly contested, theoretically and politically, issues, will be decisive. Concerning subsidiarity, the prospects for PI in Mediterranean MS will benefit from a not-too-decentralised, yet flexible policy implementation approach. The capacity of the EC to monitor policy implementation (funds, plans, etc) and ensure compliance with rules is critical. In terms of development, PI will benefit from greater “permeation” of the concept of sustainability from environment-only into conventional economic policy spheres. It is essential that sustainable development, however loosely defined, gradually becomes a standard economic blueprint for the EU guiding all policies (and not only environmental ones).

The integration of EU water with development policies will most probably contribute to combating desertification in the sensitive regions of Mediterranean Europe, at least indirectly through better management of their scarce and variable water resources and the promotion of development patterns fit to the available supply of water resources in the region. However, since the primary emphasis of the WFD is on water quality rather than on quantity, much will depend on the guidance the EU will offer and the requirements it will promulgate for the coordination of the procedures governing the preparation of river basin, rural development and regional plans and programmes. Inevitably, however, the success of any integration effort will be played out at the implementation stage where conflicts among competing interests, jurisdictions and established rules of resource use should be resolved and the subsidiarity principle renders predictions pointless and futile!

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