

A Global Energy Strategy as a Viable Means for Redressing Climate Change?

*Thilo Marauhn**

I. Introduction

Global warming involves a broad variety of highly complex issues¹. Any attempt to redress climate change is further complicated by a degree of uncertainty in respect of the nature, severity, and timing of climatic effects. On top, the economic implications of climate change are immense², ranging from industrial policy across transport to energy production and consumption³, and affecting not just developed states but also developing ones. The highly complex nature of the problem has led the international community to adopt a comprehensive approach to reduce the generation of CO₂ and other greenhouse gases. After an expert meeting in Ottawa in 1989 and discussion of the major elements of a climate change convention by the Intergovernmental Panel on Climate Change in 1990⁴, negotiations were initiated by UN General Assembly Resolution 45/212 in 1990 and concluded in 1992 with the adoption of a Framework Convention on Climate Change at the Rio Conference⁵. The Convention reflects deep differences among the participating states in respect of the measures needed and as to the distribution of responsibilities in addressing the problem. It is not surprising that Article 2 of the Convention which lays down the FCCC's objectives does not aim at a reversal of greenhouse gas emissions but at their stabilisation⁶. Thus, it seems plausible to suggest that the parties are prepared to tolerate some degree of climate change as inevitable as long as it happens slowly enough to allow adaptation. Building upon this, Article 3 sets out guiding principles and Article 4 formulates the commitments undertaken by parties to the Convention.

The guiding principles included in Article 3 of the FCCC reflect the principle of sustainable development which goes beyond the objectives of traditional environmental law but includes three "pillars", environmental protection, economic development, and social development, which must go hand-in-hand⁷. Each of these

* Dr. jur., Professor at the University of Giessen.

¹ J.T. Houghton, *Global Warming: The Complete Briefing* (2nd ed. 1997).

² See W.R. Cline, *The Economics of Global Warming* (1992); see also C. Kurtze and K. Springer, *Modelling the Economic Impact of Global Warming in a General Equilibrium Framework* (1999).

³ Cf., in particular, T. Barker *et al.* (eds.), *Global Warming and Energy Demand: Global Environmental Change Programme* (1995).

⁴ Pertinent documents are reproduced in R.R. Churchill and D.A. Freestone (eds.), *International Law and Global Climate Change* (1991), 280 et seq.

⁵ ILM 31 (1992), 849.

⁶ P. Birnie and A. Boyle, *International Law and the Environment* (2nd ed. 2002), 524.

three pillars is integrally linked to the others. Thus, effective pursuit of sustainable development requires a balanced approach that integrates all three components. Article 3 of the FCCC reflects this approach when reference to the precautionary principle is balanced by the intention to promote “a supportive and open international economic system” and the need that policies and measures adopted in the pursuit of the Convention’s objectives should be cost-effective in the sense that they will ensure “global benefits at the lowest possible cost”. Even if the legal effect of the principles included in Article 3 is limited – as is suggested by some commentators⁸ – they are not without legal effect. Their role should not be underestimated, in particular, since the commitments undertaken by parties to the FCCC and laid down in Article 4 are of a fairly weak nature. As early as 1995, at the first Conference of the Parties at Berlin, the parties accepted that these commitments were inadequate⁹. What followed was the mandate to negotiate new commitments which were then included in the 1997 Kyoto Protocol¹⁰.

Without going into further details, the Protocol includes certain emissions limits and other measures aiming at improving the obligations laid down in Article 4 of the FCCC. But this is perhaps not the decisive step forward in terms of redressing climate change. While Article 3 of the FCCC already takes a novel approach to environmental protection, the Kyoto Protocol builds upon this, in particular with its inclusion of mechanisms for joint implementation. As Patricia Birnie and Alan Boyle rightly argue, “these mechanisms (were) viewed (by developed states) ... as an essential means of meeting their commitments in an economically efficient man-

⁷ See generally E. Reh binder, *Nachhaltigkeit als Prinzip des Umweltrechts: konzeptionelle Fragen*, in: K.-P. Dolde (ed.), *Umweltrecht im Wandel* (2001), 721 et seq.; see also *lit. b* and *j* of the Delhi Ministerial Declaration on Climate Change and Sustainable Development (available at <http://unfccc.int/cop8/latest/1_cp16rev1.pdf>, still unedited version): “Parties have a right to, and should, promote sustainable development. Policies and measures to protect the climate system against human-induced change should be appropriate for the specific conditions of each Party and should be integrated with national development programmes, taking into account that economic development is essential for adopting measures to address climate change” and “Access should be improved to reliable, affordable, economically viable, socially acceptable and environmentally sound energy services and resources, taking into account national specificities and circumstances, through various means”. While the General Assembly in 2000 still considered all three pillars to be of equal importance (“Decides that the Summit, including its preparatory process, should ensure a balance between economic development, social development and environmental protection as these are interdependent and mutually reinforcing components of sustainable development” UN Doc. A/RES/55/199, para. 4), the Johannesburg Summit seems to qualify the protection of the environment only as a basis for economic and social development: “Accordingly, we assume a collective responsibility to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development – economic development, social development and environmental protection – at the local, national, regional and global levels” (para. 5). For a discussion see also S. Heselhaus, *Emissionsrechtshandel als Instrument einer nachhaltigen Entwicklung*, in: K. Lange (ed.), *Nachhaltigkeit im Recht. Eine Annäherung* (2003), forthcoming.

⁸ Birnie and Boyle, *supra* note 6, 525.

⁹ The parties could not, however, reach agreement on a new Protocol, a draft submitted by the Alliance of small Island States notwithstanding. For the draft see UN Doc. A/AC.237/L.23; for the Berlin Mandate see Decision 1/CP.1 in: FCCC/CP/1995/7/Add. 1.

¹⁰ ILM 37 (1998), 22.

ner". They may also "provide an economic incentive for developing states to restrain growth in their own emissions"¹¹.

Assessing the climate change regime is not easy due to the complex nature of the problem and the flexibility of the instruments included in both, the FCCC and the Kyoto Protocol. While it is true, that the commitments were fairly vague at the outset of the process, things have changed, in particular in respect of membership and also in demonstrating the ability to agree on stronger emissions limits and earlier timetables, as included in the Kyoto Protocol. However, it is still difficult to assess whether the incentives included in the two instruments will have the desired effect. Developments in recent years, in particular following the sixth meeting of the parties in 2000¹², in particular the announcement of the USA not to ratify the Kyoto Protocol¹³, shed a grey light upon the prospects for averting changes in the world's climate simply on the basis of the climate change regime. Last not least, the attitude of the United States towards energy efficiency policies is a critical factor in this process¹⁴.

This gives rise to the question whether the climate change regime as such is a sufficient instrument to redress climate change or whether it must be complemented, perhaps to a certain extent overcome, by other instruments that focus more closely on particular causes of climate change. While this does not mean to plead for a move back towards sectoral instruments to enhance environmental protection, it is important to note that any integrated approach which focuses upon the effects must be balanced by policy instruments taking up the principle of sustainable development with its integration of the three pillars of environment, economics and social development. A global energy strategy may be such a policy instrument and we will discuss this on the basis of the outcome of the Johannesburg Summit.

¹¹ Birnie and Boyle, *supra* note 6, 527.

¹² As a basis cf. the Report of the Conference of the Parties on the first part of its sixth session, held at The Hague from 13-25 November 2000, UN Doc. FCCC/CP/2000/5.

¹³ In a press briefing by Ari Fleischer on 28 March 2001, the following statement was issued: "The treaty, as you know, was signed, but it was not ratified by the Senate. In fact, the Senate voted 95-0 against ratification of it. Also on that measure, whether it's enforced or not – as you know, under the Kyoto agreement, 55 nations need to submit it, enforce it to their various governments. Only one nation in the world has done so. There are 54 more to go. ... The President has been unequivocal. He does not support the Kyoto treaty. It exempts the developing nations around the world, and it is not in the United States' economic best interest. ...". (<<http://www.whitehouse.gov/news/briefings/20010328.html#KyotoTreaty>>).

¹⁴ For information on the US policy pursued consult the website of the US Office of Energy Efficiency and Renewable Energy, <http://www.eere.energy.gov/office_eere/>. See also the Press Release concerning the Hydrogen Fuel Initiative launched by US President George Bush, available at: <<http://www.whitehouse.gov/news/releases/2003/02/20030206-2.html>>.

II. Energy Strategies – from Rio to Johannesburg

Starting from Article 4 (1) of the FCCC, this provision makes all parties think about climate change and develop policies on the subject, in particular in developing national and regional programmes to mitigate climate change and in integrating climate change considerations in social, economic, and environmental policies. Slightly more onerous are the obligations included in Article 4 (2) of the FCCC, principally aiming at the adoption of national policies and measures on the mitigation of climate change by limiting emissions of greenhouse gases. However, no uniformity of approach is required. It may be argued that the development of a national energy strategy, and perhaps even a regional one, is in line with the development of a policy mitigating climate change on the basis of the three pillars included in the principle of sustainable development. But this is optional, not compulsory.

Although the so-called Berlin mandate¹⁵ further specified that the new protocol would elaborate stronger policies, no specific obligation was introduced to develop a comprehensive national or regional energy strategy. While the Kyoto Protocol sets emission limits covering six greenhouse gases for those developed states listed in Annex B, there is only limited reference to the need to develop a comprehensive approach related to energy. Different limits are set for each party, taking into account, *inter alia*, their use of energy¹⁶. The Kyoto Protocol eventually commits Annex B developed state parties, to develop policies in respect of matters additional to those already covered by the FCCC, including energy efficiency, promotion of renewable energy, reduction and phasing out of subsidies that are not in line with the objectives of the Convention¹⁷. This finally points to the development of what may be called an energy strategy, not a global one but a strategy at the national, and possibly at the regional level.

While this narrow approach seems to be of limited use, there are elements pointing to a move from national or regional to global. In terms of obligations these elements may be found in the possibility that developed states might be interested in meeting their commitments jointly, and that even developing states might benefit from such assistance. The Kyoto Protocol may thus be considered a means to move towards the development of an energy strategy that goes beyond national and regional measures, in particular reference may be made to Article 6 of the Protocol which deals with joint implementation. According to this provision, Annex 1 states may agree on joint implementation with one party receiving credit against its emissions limit for supporting projects reducing the emissions of another Annex 1 party¹⁸. Although technology transfer and energy efficiency are examples of pro-

¹⁵ UN Doc. FCCC/CP/1995/7/Add.1; Decision 1/CP.1.

¹⁶ References to energy use are included in Article 2, para. 1, *lit.* a(i), a(iv), a(viii), Article 10, *lit.* b(i), and Annex A (Sectors and source categories).

¹⁷ Article 2 of the Kyoto Protocol.

¹⁸ S. Oberthür and H.E. Ott, *The Kyoto Protocol. International Climate Policy for the 21st Century* (1999), 151 et seq.

jects which Article 6 seeks to encourage, this does not necessitate a comprehensive strategy. Joint implementation only overcomes the traditional national or regional approach in allowing for more flexibility. To give but one example, the agreement between Russia and Japan on the modernisation of Russian power plants and factories in 1998 demonstrates that joint implementation projects could contribute to a modernisation of the Russian energy sector which is much less energy efficient than that of OECD countries while allowing Japan to fulfil its own ambitious emission reduction targets¹⁹. Emissions trading, as built upon Article 17 of the Kyoto Protocol, together with joint implementation is attractive to states that are already energy efficient, providing for a more cost-effective alternative if contributing to the reduction of emissions in countries which are less energy efficient.

In effect, the Kyoto Protocol pushes energy strategies from national or regional to international, but not necessarily to global. In this respect the Protocol builds upon UNCED Agenda 21²⁰ which also points to the further development of such strategies. Chapter 9 of Agenda 21 deals with the protection of the atmosphere. Particular reference to energy is included in paragraphs 9.9 et seq. Perhaps most important are the objectives set out in paragraph 9.11: “The basic and ultimate objective of this programme area is to reduce adverse effects on the atmosphere from the energy sector by promoting policies or programmes, as appropriate, *to increase the contribution of environmentally sound and cost-effective energy systems, particularly new and renewable ones*, through less polluting and more efficient energy production, transmission, distribution and use. This objective should reflect the need for equity, adequate energy supplies and increasing energy consumption in developing countries, and should take into consideration the situations of countries that are highly dependent on income generated from the production, processing and export, and/or consumption of fossil fuels and associated energy-intensive products and/or the use of fossil fuels for which countries have serious difficulties in switching to alternatives, and the situations of countries highly vulnerable to adverse effects of climate change²¹.” Agenda 21 thus acknowledges that levels of energy consumption and production are not sustainable, and that there is a need to use energy resources in a way that is not detrimental to the aims of protecting human health, the atmosphere, and the natural environment. Chapter 9 of Agenda 21 – while recognising the energy needs of developing countries – calls for countries to strive towards economically efficient and environmentally benign energy development. However, its reference to renewable energy development already met with opposition during UNCED because some oil producing nations objected to such a call included in Agenda 21. Nevertheless, it must be considered as an attempt to balance economic and environmental interests within the energy sector²².

However, Agenda 21 not only addresses energy aspects but above all and systematically puts a stronger focus on the UN system and, in particular, on a conver-

¹⁹ Oberthür and Ott, *ibid.*, 162.

²⁰ Text in N. Robinson (ed.), *Agenda 21: Earth's Action Plan* (1993).

²¹ Italics by the author.

gence of planning procedures across agencies and states²³. While international institutions are not integrated on the basis of Agenda 21, nevertheless, it sets out steps to have their environmental efforts complement each other better. The institutional reform of Agenda 21 sets out ways to achieve a convergence of activities (rather than uniformity) across institutions. Thus, Agenda 21 contributes to moving from national to global when addressing the challenge that lies in finding a way to reconcile the necessity and demand for energy supply with its impact on natural resources in order to ensure a sustainable path of development.

On this basis energy was one of the major themes of the Ninth Session of the Commission on Sustainable Development (CSD-9) where countries agreed that stronger emphasis should be placed on the development, implementation, and transfer of cleaner, more efficient technologies and that urgent action is required to further develop and expand the role of alternative energy sources²⁴. CSD-9 seeks to balance the gains of development against the detrimental effects of growth on the natural environment in developing an approach to the management of energy. There can be no doubt that energy is crucial to all aspects of development from manufacturing and modernising agriculture to providing electricity to run public infrastructure, including schools and health facilities. However, the impact of its production, distribution and use gives rise to increasing problems because – although cleaner, more efficient and even renewable energy technologies are continuously developed and implemented – the strain caused by the rise in energy demand outweighs the benefits brought by these improvements. The outcomes of CSD-9 directly lead to the World Summit on Sustainable Development, to Johannesburg.

Energy consumption was an important topic of debate at the World Summit on Sustainable Development where countries agreed – in line with the outcomes of CSD-9 – that stronger emphasis should be placed on the development, implementation, and transfer of cleaner, more efficient technologies. Also, there was a certain tendency that urgent action is required to further develop and expand the role of alternative energy sources. This deserves a closer look in order to assess the changes brought about by Johannesburg. What is, however, quite clear at this point is the fact that, first, from Rio to Johannesburg recognition of the relevance of energy strategies has increased (albeit with only limited reference in treaties and other binding instruments), and that, second, it seems to be accepted in principle that the problem can neither be solved at the national nor at the regional level but that a strategy is needed that extends these traditional approaches. Whether this really leads to a global energy strategy is doubtful in view of the attitude taken by the

²² T. Marauhn, *Beyond Pollution Control: Energy Efficiency Instruments in a Liberalised International Energy Market*, in: R. Wolfrum (ed.), *Enforcing Environmental Standards: Economic Mechanisms as Viable Means?* (1996), 301, at 325.

²³ Cf. Birnie and Boyle, *supra* note 6, 70 et seq.

²⁴ United Nations Commission on Sustainable Development, Report on the ninth session, UN Doc. E/CN.17/2001/19.

United States and some others. Nevertheless, the fact that numerous (political) commitments and initiatives in this direction were adopted at Johannesburg opens up perspectives. In order to assess the outcome of Johannesburg in this regard, the objectives and instruments included in such a strategy have to be identified.

III. Objectives and Instruments

Both²⁵, the Political Declaration²⁶ and the Plan of Implementation²⁷ adopted at Johannesburg include references to the energy sector which, in sum, may amount to the nucleus of a global energy strategy. However, such strategy needs further development, in particular, since it is not limited to objectives pursued and measures taken by public authorities but involves – to a certain extent – the private sector. The involvement of the private sector is yet in its early stages but seems to be promising.

What are then the objectives and (political) commitments of the WSSD in respect of energy? It is, above all, a commitment to increase access to modern energy services, to increase energy efficiency and to increase the use of renewable energy. The details can be taken from Paragraphs 9 and 20 of the Plan of Implementation. Paragraph 9 primarily focuses on the development goals, including “access to reliable and affordable energy services for sustainable development”. This general commitment is further specified as “access to reliable, affordable, economically viable, socially acceptable and *environmentally sound* energy services and resources, taking into account national specificities and circumstances, through various means, such as enhanced rural electrification and decentralized energy systems, *increased use of renewables, cleaner liquid and gaseous fuels* and enhanced *energy efficiency*, by intensifying regional and international cooperation in support of national efforts, including through capacity-building, financial and technological assistance”²⁸. Particular emphasis is put upon “biomass technologies”²⁹ and upon “the transition to the cleaner use of liquid and gaseous fossil fuels, where considered more environmentally sound, socially acceptable and cost-effective”³⁰.

While Paragraph 9 points to the economic and social dimension of energy supplies, Chapter 20 supplements this by more detailed references to the environmental aspects. In elaborating these, reference is made to “the recommendations and conclusions adopted by the Commission on Sustainable Development concerning energy for sustainable development at its ninth session”³¹. The following details

²⁵ Report of the World Summit on Sustainable Development, UN Doc. A/CONF.199/20.

²⁶ UN Doc. A/CONF.199/20, p. 1 et seq.; also available at: <http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/POI_PD.htm>.

²⁷ UN Doc. A/CONF.199/20, p. 7 et seq.; also available at: <http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/POIToc.htm>.

²⁸ Plan of Implementation, para. 9, *lit. a*; italics by the author.

²⁹ *Ibid.*, para. 9, *lit. b*.

³⁰ *Ibid.*, para. 9, *lit. d*.

are covered: mobilisation of financial resources, integration of energy considerations into socio-economic programmes, development and dissemination of alternative energy technologies, combination of renewable energy sources with advanced and cleaner fossil fuel technologies, diversification of energy supply, efforts to reduce flaring and venting of gas associated with crude oil production, development of indigenous energy sources, establishment of domestic programmes for energy efficiency, preferential treatment of energy efficiency and energy conservation technologies, support by international financial institutions, increased research in energy technologies, the promotion of networking between centres of excellence on energy for sustainable development, education, transparency of energy markets, avoidance of market distortions, reduction of subsidies, promotion of regional and international co-operation, and inclusion of regional, national and international producers and consumers of energy. This broad list – which is far from comprehensive – builds upon existing efforts by the CSD and other UN institutions as well as upon programmes adopted earlier, with particular reference to “paragraph 46 (h) of the Programme of Action for the Further Implementation of Agenda 21, strengthening, as appropriate, regional and national activities for the promotion of education and capacity-building regarding energy for sustainable development”³².

In coming to terms with this broad list we may identify various elements of a global energy strategy: goals, particular commitments, actors, and instruments. As far as the goals are concerned there is a triple focus upon economic, social and environmental concerns in line with the principle of sustainable development. Access to energy sources is of primary interest in order to achieve the developmental goals set out in the Political Declaration of the WSSD. This, however, is qualified by giving preference to access to “clean” energy. Second, in respect of commitments, five basic elements can be identified: increased reliance upon renewable energy sources, improvement of fossil fuel technologies, steps towards better energy efficiency and conservation, transparency of energy markets, including the prevention of market distortion and the reduction of subsidies, and finally, financial support provided for the implementation of such commitments. Third, addressing actors, the WSSD – while building upon traditional actors, such as states, the UN (with particular reference to the CSD) and other international organisations – there is increased reliance upon private actors, in particular upon energy producers and suppliers. Fourth, this points towards new instruments supplementing the regulatory approach. Obviously, there is a tendency to build more upon market forces than has been the case before. This is particularly important at the international level where we are traditionally faced with serious market distortions caused by attempts of states to establish self-sustained national energy supplies. Such market distortions are primarily based upon subsidies provided by national governments, but also supported by a regulatory framework that prevents transparency and is beneficial to entities of a certain economic size. While it is clear that reliance upon market

³¹ Ibid., para. 20, introductory sub-paragraph.

³² Ibid., para. 20, *lit. u.*

forces alone may be ambivalent, the potential of market forces should nevertheless be made use of.

This, finally, leads to an innovative and interesting outcome of the WSSD concerning the involvement of both, public and private actors: several initiatives in support of sustainable energy projects in developing countries. By way of example the following deserve attention: First, the European Union announced a \$ 700 million partnership initiative on energy³³ and the United States declared that it would invest up to \$ 43 million in 2003. Second, the South African energy utility Eskom announced a partnership to extend modern energy services to neighboring countries. Third, the nine major electricity companies of the E7 signed a range of agreements with the UN to facilitate technical cooperation for sustainable energy projects in developing countries. And fourth, the UN has received 32 partnership submissions for energy projects with at least \$ 26 million in resources³⁴. These developments indicate that time has come not just to develop a regulatory framework but also to build up a culture and an atmosphere for investments in the development of a sustainable energy sector. This forms part of a global energy strategy – if such a strategy can be identified – and it necessitates favourable conditions for foreign direct investment in this regard. It reflects the general tendency not to simply rely upon the limited resources provided by governments but to develop incentives for the involvement of private actors and reliance upon market forces.

IV. The Joint Declaration in Respect of Renewable Energy

Obviously, the substance of both, the Political Declaration and the Plan of Implementation adopted by the WSSD was not considered sufficient by various participating states in order to meet the objectives of the Summit. The states concerned focused upon the environmental dimension of the principle of sustainable development rather than on the economic and social dimension. This orientation towards environmental protection is – to a certain extent – a counterpoint balancing the focus of the Summit on fighting poverty and sustaining the economic and social development of developing countries. The focus upon economic and social development was already obvious in the process leading up to the WSSD and underlines that the principle of sustainable development as enshrined in the UNCED documents is an expression of the international community's changing attitude towards the environment. Whereas the 1972 Stockholm Declaration initiated the development of a multitude of international law instruments on environmental protection, the 1992 Rio Declaration may be considered the culminating point of developments in international environmental law with the introduction of a new focus

³³ Press Release IP/02/1256 "European Union launches major energy partnership initiative at World Summit" of 2 September 2002 (accessible through "Rapid").

³⁴ UN WSSD, Daily Briefing of Summit Spokeswoman, 3 September 2002, available at: <<http://www.un.org/events/wssd/pressconf/daily03.htm>>.

upon economic and social development. This new focus, in 2002 has brought about a shift – at least in terms of political declarations from environmental protection to the fight against poverty.

It is against this background that some states considered it necessary, in particular in the context of energy production and consumption, to balance the economic concerns by linking them to the efforts of redressing climate change. Energy needs should not be met at the expense of progress in the fight against global warming. Thus, the European Union, the Alliance of Small Island States, and seventeen other states adopted a joint declaration entitled “The Way Forward on Renewable Energy”³⁵. Without criticising the outcome of the WSSD but rather building upon it (“considering it a good basis for further international cooperation”), signatory states “intend to go beyond the agreement reached in the area of renewable energy” (para. 1). While subscribing to the achievement of “sustainable development at national and global level”, the joint declaration expresses concern about the burning of fossil fuels as “the biggest source of greenhouse gas emissions”. The declaration is then linked to the FCCC, the objectives of which can only be achieved if greenhouse gas emissions are reduced (para. 2). Building upon para. 19 (e) of the Johannesburg Plan of Implementation, signatory states express their intention to “work together to substantially increase the global share of renewable energy sources” (para. 3). While setting targets for the increase of renewable energy, the declaration seeks to make use of market forces – but accepts at the same time that renewable energy may have to be prepared for such economic environment: “Such targets are important tools to guide investment and develop the market for renewable energy technologies” (para. 4). To this end – and in line with the Plan of Implementation – the joint declaration relies heavily upon partnership initiatives rather than upon regulatory instruments (para. 5).

While the joint declaration thus fits together with the Political Declaration and the Plan of Implementation, it establishes a particular focus in line with the commitments undertaken by the parties to the FCCC and the Kyoto Protocol. From a legal point neither the Political Declaration and the Plan of Implementation nor the joint declaration are binding. Even more, the joint declaration, given the fact that it was only signed by a minority of states, may be considered to lack the political status and relevance of the other two documents. On the other hand, the joint declaration may be considered as subsequent state practice of the signatory states in respect of the FCCC and the Kyoto Protocol, thus being an expression of what the signatory states consider to be the objectives and (potential) means within the FCCC and the Kyoto Protocol but also establishing an *inter se*-relationship between the signatory states in respect of renewable energy. This is not strictly enforceable but it may be considered to be a building block in the development of a global energy strategy (for the time being, however, primarily a European energy strategy). From the perspective of signatory states the joint declaration may even-

³⁵ Declaration available through the website of the European Commission: <http://europa.eu.int/comm/environment/wssd/energy_declaration.pdf>.

tually be of interpretative value in respect of both, the FCCC and the Kyoto Protocol.

Considering the effectiveness of such an instrument means to critically assess its impact upon energy production and consumption in general. In so far, it must be admitted that the declaration as such is only of limited relevance. It is an expression of opinion and even amounts to a political programme, with certain caveats it may be considered an expression of an emerging *opinio iuris* – but it does not go beyond. On the other hand, the declaration points to an element of an emerging global energy strategy that may be much more important than the declaration itself: partnership initiatives giving renewable energies a practical effect. If focus upon renewable energy is to gain a place in international law, then this must be done by way of convincing other states of its impact upon sustainable development in its broad sense, including not just the environmental dimension but also the economic, and possibly the social one.

V. Developing a Framework for a Global Energy Strategy

When considering the decisions taken at the WSSD in 2002 in respect of climate change as well as energy production and consumption one may easily argue that this is hardly of any relevance in terms of public international law. However, such a statement would run short of an adequate assessment even in the “pre-law phase” of a positivist analyst. While this contribution has demonstrated that there is not yet a clear-cut concept for a global energy strategy available nor is there an explicit or implicit obligation to develop such a strategy, there is a need to identify areas of the law where such a strategy of which a nucleus is in the process of development may be of relevance. Also, the question may be addressed what form such a strategy may take.

A first area of the law where such a strategy might eventually be located is fairly obvious: the FCCC and its implementation process, including the Kyoto Protocol. While a global energy strategy will hardly be integrated into a regulatory concept setting specific emissions targets, it may find its place in the context of the concept of joint implementation. As the FCCC, the Kyoto Protocol and their implementation demonstrate, the integrated approach of these instruments is not suitable for traditional regulatory techniques. It rather opens up perspectives for innovative instruments building upon positive incentives and experimental projects such as the inter-state and private-public partnerships agreed upon at Johannesburg. The best example to this end may be the agreements concluded between the E7 and the United Nations³⁶. Among them is a Statement of Collaboration between the E7 and

³⁶ E7 consists of nine of the world's leading electric utilities from (what was formerly called) G7 countries. E7 was created in the wake of UNCED and its members are determined to play an active role in global electricity issues and to promote sustainable development (cf. mission statement available at <<http://www.e7.org/Pages/H-Mission.html>>).

the UN³⁷ which serves as an umbrella for other agreements with UN agencies and includes elements for other private-public partnerships³⁸. By way of example some of the agreements may be highlighted, in particular various memoranda of understanding (MOU) with the UN Department of Economic and Social Affairs (UN-DESA), the UN Environment Programme (UNEP), and a Letter of Agreement with the UN International Development Organization (UNIDO). The MOU with UNDESA reaffirms the commitment of both partners to promote energy for sustainable development while the MOU with UNEP is significant due to its environmental focus. Finally, the agreement with UNIDO is a logical consequence of the UN role in international development and the E7's involvement in sustainable energy production in developing countries.

The development of private-public partnerships as part of a global energy strategy points towards the need to develop a framework for investment in this regard. While a global energy strategy may eventually redress climate change and thus contribute to the protection of the global environment its establishment necessitates a solid legal framework in order to stimulate private investments. Neither are states in a position to meet the enormous investment requirements in order to both produce sufficient energy resources and to do this in an environmentally sound way nor would this be a sustainable strategy due to changing political priorities (as has above been illustrated with respect to the development from Stockholm through Rio to Johannesburg). Private investors – in contrast – will have a much more sustainable effect once they can be convinced that there are economic perspectives available for their investment. In this context reference may be made to the European Energy Charter Treaty³⁹ which is above all a treaty dealing with the protection of foreign direct investment. The Treaty builds upon the assumption that a solid energy strategy is only possible if there is a stable framework for related investments⁴⁰.

A third area of the law that will be of increasing importance when developing a global energy strategy is that of international trade. Reference at Johannesburg to the importance of free market forces and to the need to reduce subsidies in the energy sector point to the problem that there still is not a solid framework for fair competition at the international level. Irrespective of whether or not there really is

³⁷ For further information see the paper presented by Johane Meagher, Managing Director, E7-Secretariat, Ministerial Roundtable "Rural development and rural energy development", ECOSOC 20003, Preparations for the high-level segment (30 June – 2 July 2003), "Promoting and integrated approach to rural development in developing countries for poverty eradication and sustainable development", all papers available at <<http://www.un.org/esa/coordination/ecosoc/CD-Rom.htm>>; this paper available at <<http://www.un.org/esa/coordination/ecosoc/hl2003/RT6%20Meagher.pdf>>.

³⁸ This is in line with the Global Compact launched by the UN Secretary-General. The Global Compact is designed to advance responsible corporate citizenship in order to make business part of the solution to the challenges of globalisation. For a more general perspective see B. King, *The UN Global Compact*, Cornell International Law Journal 34 (2001), 481 et seq. and A.M. Taylor, *The UN and the Global Compact*, New York Law School Journal of Human Rights 17 (2001), 975 et seq.

³⁹ ILM 33 (1995), 381 et seq.

⁴⁰ Marauhn, *supra* note 22, 329-331.

a need to develop a kind of global competition law, there is at least a need to establish an indirect framework that serves this purpose such as has been established in other areas, including trade in goods and trade in services (GATT and GATS). The WTO is the actor that may provide a solid framework on the basis of existing rules. For the time being, while principles of trade in energy services are covered by the GATS, in the absence of an energy sector initiative in the Uruguay Round, there exist only very few commitments in energy-related services. Thus, most of the global energy services industry is not covered by specific commitments under the GATS. However, as agreed, energy services are included in the new services negotiations⁴¹.

Finally, assessing the effectiveness of a global energy strategy in order to redress climate change, present evaluations will be only speculative in character. Given the limited effectiveness of existing international instruments, however, there is some plausibility in the assumption that new instruments may actually contribute to an improvement of the situation. Reliance upon private-public partnerships as well as a more favourable environment for direct foreign investments in renewable energy may improve the situation and thus be of no less effectiveness as the traditional legal instruments agreed upon.

⁴¹ For a summary of proposals from WTO members (as of May 2001) see <http://www.mincomes.it/gats2000/energy_services.pdf> (Ministero delle attività produttive (area commercio estero)).

