Joint Ventures for Deep Seabed Mining Operations – Comment

Gregory French

Thank you very much to Professor Jaenicke who, I think, is well known to all of us. It's a pleasure for me, and a privilege, to be on the same panel with a person who has contributed so much, particularly in this most important area of joint ventures, to reaching a point where we are on the verge of achieving universal participation in the Law of the Sea Convention.

Before commencing my comments on the aspects of the new arrangements on joint ventures as reflected in the Boat Paper Agreement or the Implementing Agreement I wanted to mention a little story. I'd just like to explain how the Boat Paper Agreement originally got its name. It goes back to a very late night on the 3rd August 1993 when the boat group (the core informal negotiating group) had been working feverishly to try and get the new proposed draft agreements out on the floor of the Secretary General's informal meeting the next day. It was about 1 o'clock or 2 o'clock in the morning when we finally got the last i dotted and the last t crossed and I think it was Wes Scholz, the US delegation leader, who said: "we need a picture on the cover, something to make people take notice of it". I was sitting at a little laptop computer and there were a lot of graphics available, but the only thing which seemed plausible was a graphic of a motorized launch. So I got that out and Satya Nandan,

former Under-Secretary General for Law of the Sea and Ambassador of Fiji, the leading figure in the negotiations, stood behind me and said: "put a pipe string here and put a few manganese nodules there" and eventually we had what looked something like a mining vessel. In the next version of the boat paper those who followed the evolution of the document will note that there was a considerably improved picture which actually reflected reality – it was a very close facsimile, altered for copyright reasons, of the mining vessel Sedco 445. In this context I should thank the US mining industry, who had expressed the view that the original boat picture reflected the "technical ignorance" of the drafters as to the technology relating to deep seabed mining.

I had been looking forward to sharing the commentary here with Ambassador Hasjim Djalal of Indonesia. This would have given me the chance to mention another relevant area which was the recently negotiated agreement between Australia and Indonesia on the Timor Gap Zone of Cooperation. Of course Judge Koroma, who is present here, is at the moment rather heavily involved in a case in the Hague relating to that agreement, although dealing with a very different legal aspect to that which I would like to mention, which is the fact that the agreement established a joint authority which is in many ways analogous to the International Seabed Authority. We have already seen the signing of joint venture contracts between mining companies with regard to exploitation of the petroleum resources of the Zone of Cooperation. So you can see that this sort of thing can work very well in reality.

As Prof. Jaenicke mentioned, it is foreseen under the Convention itself in its Part XI as well as Art. 9 of Annex III that joint ventures may occur and this has been made even more precise in section 2 paragraph 2 of the Boat Paper Agreement whereby joint ventures are prescribed as the way in which the Enterprise shall function during its first operation. It also excludes other forms of cooperation which were not necessarily specifically excluded by the Convention itself in Part XI and in Annex III. Other types of contractual arrangement such as production sharing contracts or service contracts were not excluded part of the range of possible legal instruments in the Convention, but were not included in the Boat Paper Agreement. I think this reflects the fact that during negotiations people were aware that joint ventures were the most popular and arguably in many ways most successful form of joint arrangements. The kind of structured and integrated cooperation which is required through joint venture contracts appears to reflect well the views of the negotiators as to the kind of arrangements which should exist between the Enterprise and

private consortia or other industrial organizations engaging in seabed mining.

I'd like now to explain a little bit of the background of the environment of negotiations which led to the decision in favour of requiring a joint venture as the initial form of operation for the Enterprise. It relates to several points which Prof. Jaenicke mentioned, particularly the fact that there are no longer any financial obligations upon States Parties to provide promissory notes for half of the capital costs of the first mining operation or to guarantee the other half of the capital costs of the first mining operation, both of which were provided for in Art. 11 Annex IV of the Convention. This of course from the point of view of the developing countries was a concession, one could say. On the one hand we are taking away a guaranteed source of finance for the Enterprise. But on the other hand it had become very clear in the minds of negotiators that this financial support for the Enterprise would not come for free.

When you look at the kinds of contributions which would be required, the kinds of promissory notes which would need to have been put forward by the States Parties, these were not small amounts of money. If we look at some of the larger developing countries who would have been carrying the major burden of financing the International Seabed Authority you would be looking at amounts of say 14 million US dollars as a minimum. The overall capital costs of a mining operation can amount to around about 2 thousand million US dollars over 20 years. If one had looked at spreading that burden among the potential States Parties to the Convention at that stage we were looking at possibly around hundreds of millions of US dollars for the larger developing countries. The minimum amount, even for the smallest developing countries, would have been around about one hundred thousand US dollars. Of course we were talking about promissory notes, not immediate payments, but these medium-to-long-term financial obligations would have found their way into the balance of payments figures of each and every country in the long-term capital transaction part of the balance of payments. That would have an effect particularly for smaller countries I believe in terms of their external balance of payments. These issues had to be considered and I think they were accepted by countries. And so it was I think a very important decision to remove these financial burdens not just for industrialized countries but also in the interest of developing countries. And joint ventures became a way of allowing this burden to fall from the States Parties to the Con-

vention without leaving Enterprise in an untenable position. Joint ventures can allow more streamlined access to the required technology and also to the required capital.

Also, as Prof. Jaenicke had mentioned, the fact that seabed mining is not likely to occur for a long time to come was a paramount factor in people's minds. In view of this fact it seemed logical to look at ways to attempt to reduce costs for the Enterprise and a logical way to do this is sharing them with a partner. It was mentioned that the group of technical experts of the Preparatory Commission had come to the conclusion that mining would certainly not occur before the year 2000 and probably not before the year 2010. We in Australia certainly agree with this assessment and this was also reflected in the reports of the chairman of Special Commission II within the Preparatory Commission. In his advisory group on assumptions we came to similar conclusions. The macroeconomic and microeconomic analyses done in recent years by, for example, the Australian Bureau of Mineral Resources as well as by the French Marine Research Organization IFREMER have all come to the conclusion that mining is at the current time not economically feasible. According to our figures, assuming the minimum requirement for your discounted cash flow rate of return from mining operations would be around about 18 percent, then current prices for nickel would almost have to double, current prices for cobalt would have to almost quadruple and copper prices would have to go up quite a lot as well. This is without considering manganese which was not normally a part of most calculations. So it is very clear that the economic circumstances for deep seabed mining are not propitious for the foreseeable future. It is a very clear message and again militated towards adopting joint ventures.

As Prof. Jaenicke mentioned, because of the adjustment to Art. 11 of Annex IV of the Convention, the Enterprise will have no directly available funds. However, it is not bereft of access to capital: it has very substantial assets in its reserved sites. That's an extremely important point. Assuming that it works in an efficient manner and achieves a confidence of the international financial community, it will be able to use those very significant assets in the reserved sites in order to get the capital which it requires together with its joint venture partners.

I also agree fully with the comments concerning environmental regulations. The costs which will accrue for all participants in deep seabed mining are likely to increase as environmental consciousness has tended to increase in recent years – this is a further argument in favour of spreading the burden. I can mention some of the kinds of costs which will arise,

reasonable costs which are incurred also in other kinds of analogous offshore mining operations and which have been already looked at in the context of Special Commission III of the Law of the Sea Preparatory Commission which I was chairing. These include like the requirement for stable reference zones, for impact reference zones, creating contingency plans in the event of environmental problems and of course also environmental impact assessments and environmental impact statements. All these things are, I believe, in current times reasonable requirements. They will cost money: the kinds of studies which will be required are long-term and detailed.

We have seen some studies carried out already with regard to the upper strata of the water column concerning the sediment plume from seabed mining such as the Deep Ocean Mining Effect Study (DOMES) by NOAA in the United States. We have also seen German research in recent times with regard to impacts on the benthic (seabed) environment. This kind of research will have to be built upon and will not be cheap. And to the extent that joint ventures can spread this financial burden around is a thing which I believe we could all say would be welcomed.

I believe that there is much sense in the concept of an incorporated joint venture as Prof. Jaenicke has advocated, not least because a separation from the Enterprise, as the operational arm of the Authority, of the operations and assets of the operating company so formed would limit the potential liability of States Parties to the Convention. And I think that is something which would be worthy of consideration. At the same time of course it would not be an absolutely necessary requirement; there are plenty of examples of non-incorporated joint ventures which do work very well, but the limitation of the degree of financial liability which incorporation can allow does seem an attractive proposition.

I would also concur with Prof. Jaenicke that the terms of the contract should be as exhaustive and explicit as possible, bearing in mind the specific nature of the environment in which mining will occur. If we look at the field of private international law the nature of mining, which is very complex, does not necessarily lend itself to a "cover the field" type contract, which sometimes arises between private companies from different countries, whereby in effect an entire law for that particular transaction is created, almost obviating a particular proper law of the contract because every possible eventuality has been covered in the contract. The normative basis for deep seabed mining is the new Part XI as augmented by the rules, regulations and procedures of the Authority,

which themselves will be quite detailed in many areas. The specific terms of the individual joint venture contracts will be an important adjunct to this normative basis. Within this context we should certainly attempt to look forward and imagine every possible source of conflict in advance and attempt to provide for it wherever possible.

One of the potential areas of conflict mentioned by Prof. Jaenicke was related to determining an international market-price for manganese modules, a new resource. Certainly that will be a source of difficulty. At the same time, from a purely technical perspective, the resource is not significantly different in its chemical composition from middle range laterite nickel ore found in many tropical and subtropical countries and so we have already a kind of benchmark. And we also have assistance from a legal point of view from some of the national legislation in this regard. I would mention for example Section 4497(a) of the United States Internal Revenue Code which contains a definition of the "imputed value" of the resources, which would be

> "20% of the fair market value of the commercially recoverable metals and minerals contained in such a resource as at the date of removal and assuming that the metals and minerals were separated from the resource and in the most basic form for which there is a readily ascertainable market price".

It seems this would be one quite reasonable basis in terms of the value of the resource which could be looked at. Paragraph 12 of the German *Tiefseebergbaugesetz* (Deep Seabed Mining Act) contains a similar kind of provision, defining the value of the resource as the "average market price of the relevant year for the metals and minerals extracted by mining in their simplest tradable processed form". However, the German law defines the price of the resource over the full-year average rather than at the point of time at which it is extracted. Certainly it is another possible template and so I think we have already some quite useful ideas which would assist the negotiators in coming to a reasonable result from that point of view.

I think also that the suggestion that the executive board of the joint venture could be determined by the industrial joint venture partner is something very worthy of consideration. I don't believe that this would in any way impinge upon the powers of the Authority or of the States Parties to the Convention. This is because this proposal would include a supervisory board which would have participation from the Enterprise. In addition to this, the overall framework of the Convention itself, including the regulatory role of the Authority and the States Parties who make up the Authority would at all times apply. In view of this, and in

view of the goal of ensuring efficient day to day running of the joint venture operation, that suggestion is worthy of consideration.

The concept of a general investment plan, which is a component of many joint venture operations for mining, is extremely useful. So, too, would be an institutionalized re-negotiation or amendment procedure, which is already foreseen at the normative level of the Convention and the Boat Paper Agreement.

I also think it is useful, as Prof. Jaenicke has suggested, to look at covering only the mining stage of the operation when looking at a joint venture contract. There are lots of different kinds of interests which have to be considered when looking at this. Clearly I think a very important aspect to consider is the fact, as Prof. Jaenicke has mentioned, that the International Seabed Authority only has jurisdiction (in the strict sense of the word) over activities in the Area as defined in Art. 1(3) of the Law of the Sea Convention itself and so that clearly there are limits to extending beyond activities in the Area. And clearly it is not foreseen under any plan that processing of minerals would occur in the Area (that is on the seabed) or even above the Area. So it seems quite logical to restrict the application of a joint venture agreement to the mining operation.

At the same time, as Prof. Jaenicke had mentioned near the end of his talk, there is a very strong trend in international mining towards vertical integration of mining operations from the mine site all the way to the end product. And that in a way argues against the concept of hermetically sealing off the joint venture agreement from the post-mining phase. But it could be argued that it would be up to the industrial partner in the joint venture operation to look after the processing side of it. In addition, there is often geographical collocation of mining and processing in terrestrial mining, which militates in favour of vertical integration. This collocation factor will be absent in deep seabed mining.

It is also important as a further component of this equation to look at the issue of whether a joint venture agreement would apply only to the exploration phase or to the exploration and exploitation phase. It has now been provided for in the Boat Paper Agreement that there would be separate processes available: applying firstly for a plan of work for exploration and thereafter for exploitation. This again is a reflection of the new economic circumstances, whereby commercial exploitation is unlikely to occur for several decades to come. It is therefore logical to allow for a discrete regulatory framework relating only to the exploration phase, in which several entities such as the pioneer investors regis-

tered by the Preparatory Commission and the private mining consortia are already engaged.

One other advantage I would mention of the joint venture arrangement is the fact that it has, for all practical intents and purposes, solved the transfer of technology problem. Of course the Boat Paper Agreement has provided that there will be voluntary transfer of technology. There is a strong incentive for transfer of technology to the Enterprise and to developing countries by virtue of the operation of a joint venture. It is clearly very much in the interests of the industrial partner of the Enterprise to ensure that technology is available to the extent that it is necessary. This therefore obviates any need for compulsion. And so the joint venture option is, I think, extremely satisfactory from the point of view of ensuring transfer of technology to the extent that it may be required.

As has been mentioned by Prof. Jaenicke, the Boat Paper Agreement provides only that the first operation of the Enterprise would be in the form of a joint venture contract and subsequent operations could conceivably be carried out by the Enterprise alone. I think that is a matter for the participants to decide at the appropriate time. I think an important achievement of the Boat Paper Agreement was that it provides for a level playing field for all participants in deep seabed mining. If the Enterprise emerges as a lean, strong, competitive mining organization which can attract capital on the open market and can mine in an efficient manner – fine. We would be the last, I think, to disagree with allowing it to go alone. At this stage we have merely provided the kind of administrative framework which will allow these decisions to be made at the appropriate time on a purely economic basis quite apart from political considerations. From my point of view, however, I would expect that the joint venture option would prove attractive and would become the norm for the Enterprise.

In conclusion, I think it is important to recognise that joint venture arrangements, while placing certain limits upon the autonomy of the Enterprise, in no way impinge upon the underlying object and purpose of Part XI of the Convention as expressed in its Art. 36, that is, the principle that the Area and its resources are the common heritage of mankind. On the contrary, I think that this kind of arrangement, which has been very well described and advocated by Prof. Jaenicke, will allow for much more effective and efficient deep seabed mining within the Convention framework. Increased efficiencies should lead to increased cash-flows and thus to increased profits, which will flow through the International Seabed Authority to developing countries and therefore provide for a

more effective implementation and realisation of the common heritage principle.