So far as the laws of mathematics refer to reality, they are not certain.
And so far they are certain, they do not refer to reality.
- Albert Einstein (1879-1955)

6. ASSEMBLING THE TRIPOD: SYNTHESIS

This study has taken up the task of defining as clearly as possible the legal implications for states of the precautionary principle as a part of general, customary international law. It has attempted to answer the question whether it is possible to discern any concrete rights or duties in this respect and, if so, how distinctive these are. The time has come to formulate the answer, by putting the three legs of the precautionary tripod together. To avoid filling paper for the sake of it, this chapter will not reproduce every separate conclusion that was drawn in preceding chapters, let alone the backgrounds and contexts of these conclusions or the steps leading up to them. The purpose of this study is better served by focussing directly on their aggregate result and the bare answer to the above question.

The Right and the Duty of States to Take Precautionary Action Defined

This answer is that, subject to particular conditions, the precautionary principle gives rise to both a customary right and a customary duty of states to take precautionary action, which can respectively be defined as follows:

THE RIGHT OF STATES TO TAKE PRECAUTIONARY ACTION

Wherever, on the basis of the best information available, there are reasonable grounds for concern that significant harm to the environment may occur, effective and proportional action to prevent and/or abate this harm may be taken, including in situations of scientific uncertainty regarding the cause, extent and/or probability of the potential harm.

THE DUTY OF STATES TO TAKE PRECAUTIONARY ACTION

Wherever, on the basis of the best information available, there are reasonable grounds for concern that serious and/or irreversible harm to the environment may occur, effective and proportional action to prevent and/or abate this harm must be taken, including in situations of scientific uncertainty regarding the cause, extent and/or probability of the potential harm.
These definitions clearly reflect that the precautionary principle applies to all types of environmental harm anywhere, but not to all levels; and that likewise the principle applies to all types of uncertainty, but not to all levels. The difference between the right and the duty concerns the gravity of the anticipated harm. There is an obligation to take precautionary action only when the anticipated harm is serious and/or irreversible.

The two definitions also reflect that there is quite a list of conditions that need to be met before a right or duty to take precautionary action arises in any given situation. Accordingly, when contemplating any particular threat of environmental impact a series of queries must be addressed. Are there reasonable grounds for concern that the impact may come about? Are the effects in question adverse, that is, would they constitute harm? If so, is this harm significant as opposed to minor, trivial, i.e., insignificant? If so, is it also serious and/or irreversible? And if significant or serious, how significant or serious is it? These several steps are rendered schematically in the overview of Figure 9 below, which builds on supra Figure 3.

As is characteristic of general principles with a wide scope of application, various elements of the precautionary principle as defined above are open to interpretation, as discussed previously. The core of the principle is evidently agreed upon, however, as fleshed out in the course of this study. Already in 1997 it was noted by one commentator that "[t]he argument that the principle is incapable of being given clear definition is waning." These chapters have been an attempt to rise above the tangled jungle of formulations, nuances en (seeming) contradictions concerning the definition of the precautionary principle as it stands under customary international law, so as to gain a view of the whole wood instead. It is hoped that the reader will be of the opinion that, seen from the altitude that has been reached, things turn out to be rather more straightforward than they may have appeared at first glance.

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1 See, inter alia, supra paragraph 5.3; also Cameron & Abouchar, 1996, p. 46.