# Chapter 6. Indirect Obligations as a Concept

Chapter 6 will elaborate on the concept of 'indirect obligation'. It lays the groundwork for the in-depth study of indirect obligations in arbitral jurisprudence which will be conducted in the subsequent Chapter 7.

This Chapter will start by defining indirect obligations more precisely and presenting an example which will be used recurrently throughout the Chapter (I.). Indirect obligations' distinctive feature is that they are partially compulsory norms: a violation thereof will lead to the loss of an investor right as a sanction. As such, they are more binding than CSR norms but, in a way, less binding than direct obligations (II.). They turn public interest-friendly behaviour into a self-interest of the investor (III.). In doing so, they operate on the level of international law - thus independently from the host state's domestic legal system (IV.). The mentioned sanction for breaching an indirect obligation can be loss of procedural or of substantive investor rights (V.). Interestingly, standards of conduct can function as a direct and indirect obligation simultaneously (VI.). The analytical potential of the new concept of indirect obligations is to offer better insights into the changing role of the investor in investment law than alternative approaches can provide (VI.). The term reveals that investment law increasingly expects a certain behaviour from the investors, in contrast to its historical focus on merely awarding rights to them (VIII.). Part II, therefore, introduces the concept of indirect obligations as a new theoretical category to capture a dynamic reinterpretation of the field (IX.).

#### I. Definition

Indirect investor obligations<sup>1</sup> are norms which stipulate a standard of conduct. Yet, the host state cannot force investors to obey. Instead, they

<sup>1</sup> The meaning of the term 'indirect international investor obligation' differs from the use of this notion in the literature, for example by Karsten Nowrot, 'Obligations of Investors' in Marc Bungenberg and others (eds), *International Investment Law* (Nomos 2015) paras 18–21 and by Stefanie Schacherer, *Sustainable Development in EU Foreign Investment Law* (Brill 2021) 271. Barnali Choudhury, 'Investor

can choose to comply. There is no obligation to pay compensation to the host state in case of a breach. However, non-compliance will have negative consequences, depriving investors of substantial or procedural protection under an IIA in full or in part.

For example, one could imagine an IIA clause with the following content:

If the investor does not comply with the duty to respect human rights as enshrined in the ICCPR, the right to protection against expropriation granted in this treaty does not apply.

This clause would address a situation like the injection of toxin into ground water causing local casualties – a violation of the right to life enshrined in Art 6 (1) ICCPR. Here, by virtue of the IIA clause, ICCPR norms (usually only imposed on states) operate as indirect investor obligations. The state cannot demand from the investor to comply with the ICCPR. There is nothing in the text that indicates that a violation should have any other consequences than the one mentioned: deprival of protection against expropriation under the IIA.

II. Partially compulsory norms

Such an indirect obligation differs from direct obligations studied in Part I. Direct obligations are self-standing. In contrast, indirect obligations are intertwined with an investor right, in the aforementioned hypothetical example the protection against expropriation. While direct obligations are compulsory, investors have the freedom not to comply with an indirect obligation – if they are ready to accept that they lose the corresponding investor right.

However, this does not mean that indirect obligations are voluntary, non-binding norms. They do have legal effect because they change the

Obligations for Human Rights' (2020) 35(1–2) ICSID Review 82 employs the term 'investor obligations' taking account of direct and indirect obligations within the meaning of this study, but without distinguishing between these two categories as suggested here. A concept fairly similar to the one proposed here is identified by Tillmann R Braun, *Ausprägungen der Globalisierung: Der Investor als partielles Subjekt im Internationalen Investitionsrecht: Qualität und Grenzen dieser Wirkungseinheit* (Nomos 2012) 193 and by George K Foster, 'Investors, States, and Stakeholders: Power Asymmetries in International Investment and the Stabilizing Potential of Investment Treaties' (2013) 17(2) Lewis & Clark Law Review 361, 403.

investor's legal position under an IIA. Importantly, the consequence of losing an investor right does not depend on the investor's will but occurs automatically. In other words, in the above-mentioned example, the investor cannot choose not to comply with the ICCPR *and* keep protection against expropriation at the same time. A breach of an indirect obligation thus leads to a legal sanction. For this reason, one can understand it to exert a partially compulsory effect of lower intensity compared to direct obligations.<sup>2</sup> Furthermore, often foreign investors will not have a choice if they wish to preserve investment protection. Corporate law may require them to make use of all available legal protection to safeguard their shareholders' interests, including IIAs<sup>3</sup> – hence forcing them to fulfil the indirect obligations. Indeed, practically speaking, the automatic loss of investment protection may harm investors more than the prospect of being liable for not complying with direct obligations.<sup>4</sup>

The partly compulsory effect operates indirectly by using investor rights as leverage – which is the reason for naming these norms *indirect* obligations. In this regard, indirect obligations express a behavioural expectation<sup>5</sup> and set an according legal standard of conduct. Similarly, the IISD noted in its 2018 expert meeting on integrating obligations into IIAs:

Throughout the two-day meeting, the meaning of 'investor obligations' was repeatedly brought up and debated by participants. It was noted that, in a broad sense, provisions laying out conditions relating to the behaviour of an investor could be seen as an investor obligation.<sup>6</sup>

<sup>2</sup> Quite similar is the assessment of such implied norms as '[...] behavioural expectations being incumbent upon investors on the basis of the principle of good faith, a violation of which does not give rise to compensation, but "merely" results in a legal disadvantage with the investor forfeiting the protection under the respective investment agreement' by Nowrot (n 1) para 31.

<sup>3</sup> The presence and reach of such an obligation of course varies according to the applicable domestic law and the corporate structure of the investor. On the variety of such corporate models see for example Peter Muchlinski, *Multinational Enterprises and the Law* (2nd edn, Oxford University Press 2007) 52–77.

<sup>4</sup> More details on the steering potential of investor obligations will be provided in Chapter 10.

<sup>5</sup> Similarly Nowrot (n 1) para 31.

<sup>6</sup> IISD, Integrating Investor Obligations and Corporate Accountability Provisions in Trade and Investment Agreements: Report of the Expert Meeting Held in Versoix, Switzerland, January 11–12, 2018 (2018) 18.

The binding character of indirect obligations becomes even clearer if one compares them to CSR norms. The latter are truly voluntary, in the sense that there is no legal sanction or consequence in case of non-compliance. If investors do not live up to the UN Guiding Principles on Business and Human Rights, the CSR norm by itself does not alter their legal position.<sup>7</sup> They may only be subject to non-legal sanctions such as reputational loss or increasing consumer pressure. In contrast and as seen above, indirect obligations entail a negative legal consequence which justifies categorising them as a form of *obligation*.

### III. Turning the public interest into a self-interest

Indirect obligations' partially compulsory character leads to the question of their purpose. On the one hand, one can understand them as norms that serve their addressees' own interest. This is because of their effect on investor rights. If investors do not comply, they impair their own legal position. In this sense, they comply for their own sake.

However, this does not mean that indirect obligations cannot serve the public interest at the same time. Legal norms often pursue more than one purpose. It depends on indirect obligations' *content* if they also protect the public interest.

In the hypothetical example at the beginning of this Chapter, the IC-CPR-clause will motivate investors to comply with the ICCPR in their own interest not to lose protection against expropriation. However, at the same time, the clause serves the public interest, too. It assumes that investors will comply because they may want to avoid the sanction of losing protection.

Therefore, indirect obligations can, at least incidentally, aim to protect the public interest. Not by demanding public interest-friendly behaviour and threatening enforcement like direct obligations do but instead by turning such behaviour into a self-interest of the investor. They take advantage of the leverage that investor rights offer and the striving of investors for lowering their investment risk.

<sup>7</sup> A different question is whether a certain legal norm may define its content by reference to CSR standards. In this case, the legal effect follows from the legal norm only.

#### IV. International character

It is of importance for the analysis that, just as direct obligations, indirect obligations operate on the level of international law. This follows from the fact that they relate to international rights. They cause the investor to partly or completely lose such an international right, e.g. the protection against expropriation. Therefore, indirect obligations necessarily share these rights' status of international norms.

In the above-mentioned example, the ICCPR clause is of international character. Its source is the respective IIA, an international treaty. And it curtails the right to protection against expropriation, an international right of the investor in case of non-compliance with the ICCPR.

Notwithstanding, as will be proven in Chapter 7 in detail, indirect obligations also allow for an interplay with domestic law. In this respect, they are similar to direct obligations in light of the findings in Part I. For example, one could alter the above-mentioned IIA clause as follows:

If the investor does not comply with the duty to respect human rights as enshrined in the host state's constitution, the right to protection against expropriation granted in this treaty does not apply.

Again, this indirect obligation would operate on the level of international law for the same reasons described in the previous paragraph: it forms part of a clause of an international treaty and has effect on an international right. Only the standard of conduct's *content* is defined by reference to domestic law. Potentially, this allows indirect obligations to build on the many obligations in domestic legal systems which protect the public interest.

V. Loss of procedural or substantive rights

Violating an indirect obligation can cause the loss of a substantive or a procedural investor right. The former has already been introduced. But investors can also forfeit their procedural right to file a claim before an investment tribunal. To give another example, a respective IIA clause could state as follows:

If the investor does not comply with the duty to respect human rights as enshrined in the ICCPR, any arbitral claim filed within the terms of this agreement against the host state is inadmissible. This type of indirect obligation changes the investor's legal position, too. After violating the ICCPR, the investor forfeits the right to file an arbitration claim – an important procedural right given in the IIA's arbitration clause which grants access to an international dispute settlement procedure. The analysis will, thus, include negative consequences on both substantive and procedural investor rights.

### VI. Norms with dual character

Indirect obligations do not preclude that a certain standard of conduct may simultaneously operate as a direct obligation. Standards can have a dual character in this regard. In such a case, violating them accrues both types of negative legal consequences: The host state can enforce the standard and claim compensation as a matter of international law. And the investor automatically loses an investor right in part or in total.

One can illustrate this by altering the above-mentioned hypothetical IIA clause to the following:

(1) The investor must comply with the duty to respect human rights as enshrined in the ICCPR. In case of non-compliance, the host state can file an investment arbitration claim against the investor and demand compensation.

(2) In addition, if the investor does not comply with the duty to respect human rights as enshrined in the ICCPR, the right to protection against expropriation granted in this treaty does not apply.

Paragraph one imposes a direct, paragraph two an indirect obligation on the investor. Yet, both obligations define their content by the same standard: the duty to respect ICCPR rights. Thus, this example shows that the identical standard can have a dual character. Imposing direct and indirect obligations on investors at the same time is a way of addressing their conduct towards the public interest in a particularly restrictive way.

# VII. Analytical potential

Introducing the concept of indirect obligations follows from the assessment that, as will be seen, it best describes and models the encountered legal practice. It is not the only possible way of conceptualising clauses such as the ones used in the presented hypothetical examples. Alternatively, one could understand such clauses as requirements or conditions of investor rights. In this view, in the example given above, the protection against expropriation would simply have another requirement: compliance with ICCPR rights. Another alternative, as for example elaborated by *Jarrett*, is to conceive aspects of the practice analysed in this Part as a *defence* against investment claims.<sup>8</sup> For *Jarret*, the function of defences is to eliminate or reduce state liability.<sup>9</sup> This function indeed covers an important part of the analysis in Part II. Where the concepts of indirect obligations and defences of state obligations overlap, they are simply two sides of the same coin.<sup>10</sup> However, indirect obligations as understood here are broader in scope than *Jarrett's* understanding of defences. For example, indirect obligations do not only relate to the question of liability but also to reasons for defeating a tribunal's jurisdiction<sup>11</sup> and can encompass investor misconduct that is not in a causal relationship to the state's breach of an investor right.<sup>12</sup>

By turning away from the focus on the state's breach of investor rights, the concept of indirect obligations offers additional and different insights into how investment law is changing – and what this change means for investors. The notion of 'obligation' expresses that something is actively expected from its addressee. If one is subject to an obligation, that person's actions are under scrutiny. It reflects that compliance is at the investor's

<sup>8</sup> Martin Jarrett, Contributory Fault and Investor Misconduct in Investment Arbitration (Cambridge University Press 2019).

<sup>9</sup> ibid, 22.

<sup>10</sup> This is supported for example by Jean-Michel Marcoux and Andrew Newcombe, 'Bear Creek Mining Corporation v Republic of Peru: Two Sides of a "Social License" to Operate' (2018) 33(3) ICSID Review 653, 658 on the example of a 'social license' that investors may require to operate their investment. In their view, investment law may cover it as a responsibility of the state to monitor foreign investors' attempt to seek consent for the investment from local communities; but one could also understand it as an obligation imposed on the investors. The authors consider these two constructions to be 'two sides of the same coin', but only the latter allowed for a 'meaningful application' of the concept of social license.

<sup>11</sup> Such defeats of jurisdiction, similarly to reasons for finding a claim inadmissible, are excluded from the term 'defence' in Jarrett (n 8) 40–41.

<sup>12</sup> Fundamental to *Jarrett's* study is acknowledging the multitude of causes for a state's breach of investor rights and specifying that the legal elements of contributory fault should distinguish between investor conduct directly causal for this breach – so called mismanagement – and investor conduct only indirectly causal for this breach – so called investment reprisal, see ibid, 160–161 and his theory on causation in 53–77.

disposal: obligations express behavioural expectations.<sup>13</sup> In contrast, 'conditions', 'requirements' or 'defences' have a much more neutral connotation. They do not necessarily relate to personal behaviour – for example, that the sun is shining surely is a condition for enjoying the beach. They can also relate to all sorts of objective circumstances, for example distress due to a natural catastrophe by which we may evaluate the *state's* conduct in a new light.<sup>14</sup> The category of 'indirect obligations' is more specific in this regard. It better emphasises a new active role of the foreign investor vis-à-vis the public interest. In the broader picture, it sheds light on a recent development that is at the heart of this book: how investment law increasingly examines not only the state's but also the investor's misconduct.

Conversely, it is clear that not every circumstance related to the investor's conduct can constitute an indirect obligation in a manner that is conceptually meaningful. Eventually, every investor right requires the investor to act in some way to fulfil its requirements. For example, the protection against expropriation requires the investor to have assets. Without assets, there is nothing the host state can expropriate. Yet, there is no analytical advantage in understanding the requirement of 'having assets' as an indirect obligation. It does not serve as a relevant standard for how the investor is expected to behave in the host state's society.

Rather, indirect obligations as they are understood here are only those norms which set a certain standard as to how investors must behave towards the public interest. It must be possible to formulate that if investors harm the public interest by doing X, the consequence is that they partly or completely lose investor right Y.

By shedding light on this linkage between a public interest standard and a legal consequence, the concept of indirect obligations allows to compare them to direct obligations more easily and clearly. As especially Part III will show, direct and indirect obligations form part of a common development. They also share normative features. For example, both raise the question of how to determine the attributable conduct. In the abovementioned example: under which circumstances is the investor responsible for polluting the ground water? Is intent required? Is negligence sufficient? This assessment is relevant irrespectively of the consequences of breaching the obligation – be it that investors have to pay compensation (in case of a

<sup>13</sup> cf n 5.

<sup>14</sup> This covers some cases of defences which contain an 'external legal element' compared to a state's investment obligation as understood by Jarrett (n 8) 17.

direct obligation) or that they lose their investment protection (in case of an indirect obligation).

Interestingly, in some domestic jurisdictions, the category of indirect obligations is established as a legal subtype of obligations in private law, especially in insurance law.<sup>15</sup> There, insurance terms are the equivalent to what has been defined here as indirect obligations. For example, theft insurances for bikes may require the locking of the bike if left in public. Car insurances may call for regular inspections and reparations. Health insurances may prohibit particularly dangerous activities such as bungee jumping. In all these cases, the consequence of not complying with these rules is the loss of insurance protection. In contrast to this domestic terminology, no branch of international law has so far invented a similar concept. Yet, the analogy to domestic insurance law is helpful to point out the analytical potential of indirect obligations. After all, investor rights enshrined in IIAs serve a similar function as a form of international insurance for investors in a foreign domestic legal system.

The insurance terms in domestic jurisdictions mainly serve to safeguard the insured's own interest: a bike that is locked is less likely to be stolen. There, these terms serve to distribute risks between private parties. In contrast, investment law is a branch of public law.<sup>16</sup> Tribunals which apply investor rights often review state regulation and engage in the balancing of investors' interests with public goods and third-party rights. By intertwining indirect obligations with investor rights, they share this public law character. Consequently, they have ground to express how investors should behave towards public goods and other individuals – in other words, to define their role in a society.

#### VIII. Lacking tradition

This makes indirect obligations interesting to study as a matter of international law. As seen above, in contrast to domestic jurisdictions in which there are plenty of obligations directly applicable to private actors, interna-

<sup>15</sup> For example, in the German jurisdiction, it is established to consider these types of norms as a specific form of an obligation, called 'Obliegenheit', see the fundamental study by Reimer Schmidt, *Die Obliegenheiten: Studien auf dem Gebiet des Rechtszwanges im Zivilrecht unter besonderer Berücksichtigung des Privatversicherungsrechts* (Karlsruhe 1953).

<sup>16</sup> See for example the in-depth analysis by Gus van Harten, *Investment Treaty Arbitration and Public Law* (Oxford University Press 2007).

tional law only rarely directly addresses their actions.<sup>17</sup> This is not solely the case for direct obligations which have emerged only recently as laid out in Part I. In addition, in the history of international investment law, there exists no tradition of addressing the investors' misconduct regarding investor rights, even in an indirect way.

Before international investment law existed, only the home state could protect the investor of its nationality against the host state through diplomatic protection. Every state was (and continues to be) bound by the customary law of aliens which constitutes a minimum standard of treatment. Traditionally, it was construed as being purely inter-state in nature: If a host state violated the law of aliens, it infringed on an international right of the home state in the person of its national. In other words, the state fully mediatised the national – it was the only bearer of the international right of aliens.<sup>18</sup> Because of this inter-state character, diplomatic protection did not consider the national's misconduct as a relevant point to determine protection. Within the inter-state logic, this makes sense: individuals like an investor cannot impair the sovereign right of their state of nationality through their actions.<sup>19</sup>

<sup>17</sup> cf the studies by John H Knox, 'Horizontal Human Rights Law' (2008) 102(1) American Journal of International Law 1, 18 who identifies that international human rights law sometimes does specify conduct expected from private actors. But these norms are much rarer than ones that provide discretion to the state how to enact and enforce its duty to protect human rights.

<sup>18</sup> The Mavrommatis Palestine Concessions (Greece v Britain) (Objection to the Jurisdiction of the Court) [1924] PCIJ Rep Series A No 2, 12; confirmed by Case Concerning the Barcelona Traction, Light and Power Company, Limited (Belgium v Spain) (Second Phase) (Judgment) [1970] ICJ Rep 3, para 78. To also understand rights underlying diplomatic protection as individual rights is a rather new development, see LaGrand Case (Germany v USA) (Judgment) [2001] ICJ Rep 466, para 77; Case Concerning Avena and Other Mexican Nationals (Mexico v United States of America) (Judgment) [2004] ICJ Rep 12, para 40 on Art 36 (1) Vienna Convention on Consular Relations (adopted 24 April 1963, entered into force 19 March 1967) 596 UNTS 261 (VCCR).

<sup>19</sup> The requirements of diplomatic protection that at first glance appear to consider the national's conduct do not allow for a different conclusion: The requirement that the national has to exhaust the host state's local remedies serves to give the host state a chance to remedy a violation towards the home state through internal institutions and processes, see *Interhandel Case (Switzerland v USA)* (Preliminary Objections) [1959] ICJ Rep 6, 27. The doctrine of clean hands relates to the claiming state's misconduct and is not established in relation to an improper behaviour of the national. The ILC has rejected to exclude diplomatic protection in such constellations precisely because the national cannot thereby impair a right of the sovereign home state, see ILC 'Sixth Report on Diplomatic Protection, by

Precisely because of diplomatic protection's inter-state nature, states invented investment law in the late 1950s. Yet, within investment law's original logic, investor misconduct towards the public interest was of no concern: The process of decolonisation had started, and tensions between developing and developed states were increasing. The international community failed to agree on a comprehensive international economic treaty, the Havana Charter. Many states feared that general political controversies would impair the exertion of diplomatic protection on behalf of their investors.<sup>20</sup> In this contentious political climate, IIAs were an attempt to depoliticise the protection of foreign investors.<sup>21</sup> These treaties should exclusively focus on granting rights to the investors. They served to attract foreign investment on the premise that any increase of the investment volume would benefit the host state's development.<sup>22</sup> As a consequence, their sole purpose was to protect investors and discipline host states accordingly.

- 20 Similarly, the then existing bilateral treaties of friendship, navigation and commerce (FCN-treaties) between various states had a comprehensive scope. Hence, they could not alleviate the concern that questions of general politics could burden the protection of foreign investors, see Andreas L Paulus, 'Treaties of Friendship, Commerce and Navigation' in Anne Peters (ed), *Max Planck Encyclopedia of Public International Law* (March 2011) paras 7–16; John F Coyle, 'The Treaty of Friendship, Commerce, and Navigation in the Modern Era' (2013) 51(2) Columbia Journal of Transnational Law 302, 311–316; their highly political character is well-evidenced by two famous contentious proceedings of the ICJ on the use of force that build on FCN-treaties, namely *Case Concerning Military and Paramilitary Activities in and against Nicaragua (Nicaragua v United States of America)* (Jurisdiction of the Court and Admissibility of the Application) [1984] ICJ Rep 392, paras 77–83; *Case Concerning Oil Platforms (Islamic Republic of Iran v United States of America)* (Preliminary Objection) [1996] ICJ Rep 803, paras 17–54.
- 21 See Ibrahim F Shihata, 'Towards a Greater Depoliticization of Investment Disputes: The Roles of ICSID and MIGA' (1986) 1(1) ICSID Review 1, 1–12, 24–25.
- 22 See above Chapter 1.II.2 and for a further analysis on how this telos is changing Chapter 9.III.

Mr. John Dugard, Special Rapporteur' UN Doc A/CN.4/546 (11 August 2004), para 8. Only the principle of contributory negligence allows to examine the impact of the national's conduct on the damage caused to the home state, see Art 39 of the ILC Articles on State Responsibility, UNGA 'Responsibility of States for Internationally Wrongful Acts' UN Doc A/RES/56/83 (12 December 2001), that to determine reparation, 'account shall be taken of the contribution to the injury by wilful or negligent action or omission of the injured state or any person or entity in relation to whom reparation is sought' (emphasis added). However, it is a standard of causation and thus originally did not serve to scrutinise the investor's behaviour towards the public interest, see Brigitte Bollecker-Stern, Le préjudice dans la théorie de la responsabilité internationale (Editions A. Pedone 1973) 316.

Even the recent debate on the right to regulate did not bring about much awareness to the investor's misconduct. Rather at stake were the host state's actions and its remaining leeway to protect the public interest.

# IX. A new doctrinal category in a developing field

Against this background, Part II must be understood as attempting to read a changing interpretation of investor rights in a new light. The concept of indirect obligations is not (yet) established in investment law. As will be shown, there is an ongoing process of reinterpreting investor rights so as to give regard to investor misconduct.

In contrast to this book, tribunals do not have to decide if a certain feature of an investor right qualifies as an indirect obligation – and forms part of an overarching development. They simply must solve the dispute at hand. The tribunals' decisions predominantly revolve around specific legal issues. Consequently, the subsequent Chapter that studies investment practice will encounter a field which is doctrinally underdeveloped in this regard. In the same vein, already in 2006, *Muchlinski* pointed out that the FET right

[...] has been discussed primarily as a measure for determining the obligations of host countries towards investors and investments. In this process the role, if any, that the conduct of the investor may play in the evolution and application of the standard has not been examined in much detail.<sup>23</sup>

Nevertheless, the study will show that practice has already established indirect obligations in different ways – even though, as will be seen, tribunals and scholars have not defined them as such and rarely have pointed out that they establish a separate doctrinal category.

Yet, the analysis will also reveal that, at times, tribunals have shown a notable, new awareness of the investor's misconduct but without strictly and automatically depriving investors of protection in case of the breach of a certain standard of conduct. In these cases, investor misconduct is only one balancing criterion amongst other considerations. Consequently, one cannot, yet, understand them as bringing about an indirect obligation.

<sup>23</sup> Peter Muchlinski, "Caveat Investor"? The Relevance of the Conduct of the Investor Under the Fair and Equitable Treatment Standard' (2006) 55(3) International & Comparative Law Quarterly 527, 527–528.

The IISD has described such instances as an '[i]nterpretation approach: the fact of non-compliance will be taken into consideration when a tribunal interprets the treaty.'<sup>24</sup>

Nevertheless, they are worth being taken into account because they indicate indirect obligations in imperfect forms. They reflect a desire to make investor rights dependent on such proper conduct as a preliminary step to indirect obligations. Therefore, as Part II will prove, they contribute to the ongoing dynamics in investment law.

<sup>24</sup> IISD (n 6) 18.