

## Nuclear non-proliferation

- 4.1 In general, aside from inquiry participants with an in-principle opposition to the use of nuclear power, concerns about the proposed *Agreement between the Government of Australia and the Government of India on Cooperation in the Peaceful Uses of Nuclear Energy* (the proposed Agreement) fall into one of three categories:
- India's position as one of the handful of known nuclear weapons states that are not signatory to the *Nuclear Non Proliferation Treaty* (NPT);
  - the quality of safety and regulation of India's nuclear industry; and
  - concerns about specific provisions in the proposed Agreement.
- 4.2 This Chapter will examine the issues associated with India's nuclear non-proliferation record in detail, and the following chapters will deal in detail with each of the other categories of concern.
- 4.3 India tested its first nuclear device in 1974 using plutonium from a Canadian supplied nuclear reactor in contravention of the *Canada-India Reactor Agreement 1956*.<sup>1</sup> India is estimated to possess between 90 and 110 nuclear warheads.<sup>2</sup>
- 4.4 India is one of three nuclear weapons states that have not signed the NPT. The other nations are Israel and Pakistan.<sup>3</sup> India, Israel and Pakistan are not party to the NPT because the NPT cannot be ratified by a nuclear armed state that conducted its first nuclear weapons test after

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1 Mr John Carlson, *Submission 1*, p 10.

2 Arms Control Association, *Nuclear Weapons, Who Has What at a Glance*, <<http://www.armscontrol.org/factsheets/Nuclearweaponswhohaswhat>>, viewed 2 February 2015.

3 Arms Control Association, *Nuclear Weapons, Who Has What at a Glance*, <<http://www.armscontrol.org/factsheets/Nuclearweaponswhohaswhat>>, viewed 2 February 2015. North Korea is a signatory to the NPT, but has withdrawn from the Treaty. North Korea is believed to have a small number of nuclear weapons.

1 January 1967. In practical terms, India can only ratify the NPT if it disposes of its nuclear weapons.<sup>4</sup>

- 4.5 The situation has been recognised by the Australian Safeguards and Non-Proliferation Office (ASNO) for some time. Former ASNO Director-General John Carlson states:

The reality of course is that India is a de facto nuclear weapons state, and I certainly took the view in my government days that treating India as an outcast was actually achieving nothing.<sup>5</sup>

- 4.6 Negotiating a nuclear cooperation agreement with India represents a significant change in approach for uranium supplier states like Australia. Following such a path is not without risk, in terms of the stability to the international nuclear non-proliferation architecture, and to the strategic environment of the region.
- 4.7 On the other hand, nearly forty years of relative isolation from the international nuclear non-proliferation community has not prevented the development of a nuclear reactor electricity generation capacity in India. Nor has it prevented a nuclear arms race on the Indian subcontinent.
- 4.8 Further, Australia is not alone in negotiating a nuclear cooperation agreement with India. Both Canada and the United States have agreements with India, and the Nuclear Suppliers' Group, a group of uranium exporting states with a commitment to non-proliferation, conditionally agreed to the export of uranium to India in 2007.

## **The Nuclear Suppliers' Group**

- 4.9 The Nuclear Suppliers' Group's decision took into account the fact that India was strategically placed between two other nuclear weapons states, Pakistan and China, and was not in a position to become a signatory to the NPT because of the specific provisions of that Treaty.
- 4.10 The Group's decision was conditional on India adopting all of the obligations incumbent upon nuclear weapon states under the NPT. In other words, India would have to become de facto compliant with the NPT.<sup>6</sup>

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4 Mr Carlson, *Submission 1*, p. 5.

5 Mr Carlson, *Committee Hansard*, Canberra, 9 February 2015, p. 5.

6 Mr Crispin Rovere, *Submission 2*, p. 4.

- 4.11 Specifically, the Nuclear Suppliers' Group identified the following conditions for the supply of nuclear material to India:
- India's civil and military nuclear facilities must be separate, with the civil nuclear facilities placed under International Atomic Energy Agency (IAEA) safeguards (India has concluded an *Agreement between the Government of India and the International Atomic Energy Agency for the Application of Safeguards to Civilian Nuclear Facilities*);
  - India must have in place an IAEA Additional Protocol on safeguards with respect to civil nuclear facilities;
  - India must maintain its unilateral moratorium on nuclear testing;
  - India must work towards concluding a fissile material cut-off treaty;<sup>7</sup> and
  - India will refrain from transferring uranium enrichment and plutonium processing technologies to states that do not have them.<sup>8</sup>
- 4.12 The Group's decision to conditionally allow the sale of uranium to India occurred at the urging of the United States, which had just concluded a nuclear cooperation agreement with India.<sup>9</sup>
- 4.13 In relation to whether India has met the conditions set out by the Nuclear Suppliers' Group, ASNO states:
- ... India has fulfilled all of these six elements that were the conditions for the Nuclear Suppliers Group.<sup>10</sup>
- 4.14 Prior to the 2007 decision by the Nuclear Suppliers' Group, Australia only exported nuclear material to countries that were party to the NPT. Consequently, access to nuclear materials became an incentive to join the NPT, and over time the supply of nuclear materials has become a mechanism conferring legitimacy on a recipient state's nuclear activities.<sup>11</sup>

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7 A treaty committing the signatory to stop producing nuclear weapons materials.

8 Minerals Council of Australia (MCA), *Submission 9*, p. 4.

9 MCA, *Submission 9*, p. 4.

10 Dr Robert Floyd, Director General, Australian Safeguards and Non-Proliferation Office (ASNO), Department of Foreign Affairs and Trade, *Committee Hansard*, Canberra, 15 June 2015, p. 4.

11 Mr Rovere, *Submission 2*, p. 3.

## The Nuclear Non-Proliferation Treaty

4.15 Nuclear weapons states are classified according to whether they are signatories to the NPT. Nuclear weapons states that are signatories to the NPT are: the United States; Russia; France; the United Kingdom; and China.<sup>12</sup> Significantly, the NPT requires parties to:

... pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament ...<sup>13</sup>

4.16 The NPT is one of the most effective and respected international treaties:

It should always be remembered – the fact that only nine countries possess nuclear weapons seventy years after they were first developed is no accident. It is the result of careful policy making, successful negotiation, and the active restraint of far-sighted statesmen over decades.<sup>14</sup>

4.17 The fact that the proposed Agreement involves a nuclear weapons state that is not signatory to the NPT has prompted a number of non-proliferation experts and civil society groups to oppose the proposed Agreement.<sup>15</sup>

4.18 The Australian Conservation Foundation (ACF) submission argues that, in a general sense, any export of nuclear materials to a nuclear weapons state can contribute to that state's development of nuclear weapons by freeing up other nuclear material to be used in weapons.<sup>16</sup>

4.19 In a more specific sense, Associate Professor Tilman Ruff, representing the International Campaign to Abolish Nuclear Weapons (ICAN) argues that:

The nuclear commerce with a state party that is not a part of the non-proliferation treaty, very significantly, particularly at this crucial time I believe, erodes and undermines the very purpose and bargain that is enshrined in that treaty and seriously would

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12 Arms Control Association, *Nuclear Weapons, Who Has What at a Glance*, <<http://www.armscontrol.org/factsheets/Nuclearweaponswhohaswhat>>, viewed 2 February 2015.

13 *Nuclear Non-Proliferation Treaty*, Article VI.

14 Mr Rovere, *Submission 2*, p. 12.

15 For example, Mr Carlson, *Submission 1*, p. 2; Mr Ronald Walker, *Submission 6*, p. 2; Mr Ernst Wilhelm, *Submission 23*, p. 1; Professor Lawrence Scheinman, *Submission 13*, p. 1; the Australian Conservation Foundation (ACF), *Submission 5*, p. 2; The Uniting Church of Australia Justice and International Commission, Synod of Victoria and Tasmania, *Submission 8*, p. 2; and Friends of the Earth (FoE), *Submission 14*, p. 2.

16 ACF, *Submission 5*, p. 2.

tarnish Australia's credibility in terms of its seriousness and its commitment to nuclear disarmament and non-proliferation.<sup>17</sup>

- 4.20 Because the NPT only permits membership of nuclear armed states that conducted nuclear tests before 1967, India can only become a signatory to the NPT if it renounces the manufacture of nuclear weapons and dismantles its nuclear arsenal.<sup>18</sup>
- 4.21 In addition under the terms of the NPT, there is no scope for another state to test and develop nuclear weapons. A nuclear-weapon state is defined as a state that conducted a nuclear test explosion prior to 1 January 1967.<sup>19</sup>
- 4.22 John Carlson argues that, while it would be ideal if India disarmed and became a party to the NPT:
- ... realistically, they are not going to do that in the current strategic environment.<sup>20</sup>
- 4.23 The environment to which Mr Carlson is referring is the fact that India borders on and is in occasional conflict with China and Pakistan, both of which possess nuclear weapons.
- 4.24 In fact, India did not conduct a full round of nuclear weapons tests, and declare itself a nuclear weapons state, until it was clear that Pakistan, with China's assistance, was about to do the same.<sup>21</sup>
- 4.25 In other words, the problem India has with the NPT is that as a result of the application of an arbitrary date, 1 January 1967, one emerging global power, China, is permitted to possess nuclear weapons, while another, India, is not.
- 4.26 Because, in the current environment, it is not realistic for India to relinquish its nuclear weapons, there is no practical way India can become a signatory to the NPT.<sup>22</sup>
- 4.27 According to John Carlson, India views the NPT as inherently discriminatory:
- ... because it divides the world into the haves and the have-nots — the nuclear-weapon states and the others...<sup>23</sup>

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17 Associate Professor Tilman Ruff, International Campaign to Abolish Nuclear Weapons (Australia) (ICAN), *Committee Hansard*, Melbourne, 18 May 2015, p. 14.

18 Mr Carlson, *Submission 1*, p. 5.

19 Mr Carlson, *Committee Hansard*, Canberra, 9 February 2015, p. 8.

20 Mr Carlson, *Committee Hansard*, Canberra, 9 February 2015, p. 8.

21 Mr Rovere, Crispin, *Submission 2*, p. 3.

22 Mr Carlson, *Submission 1*, p. 5.

23 Mr Carlson, *Committee Hansard*, Canberra, 9 February 2015, p. 8.

4.28 Crispin Rovere summarises India's dilemma as follows:

The key point is that India is very sensitive to any perceived bias by the international community that India is less than an emerging Great Power on par with the United States and China.<sup>24</sup>

4.29 The Indian people consider India to be a burgeoning great power with all that means for the international system and India's status as a nuclear weapons state in the long term.<sup>25</sup>

4.30 ASNO has recognised that India is a de-facto nuclear weapons state for some time. Former ASNO Director-General, John Carlson states:

My view has always been that we have to do something else with India now, that there is no point in flogging a dead horse.<sup>26</sup>

4.31 This view is not held by the bulk of the signatories to the NPT. Ronald Walker comments that keeping faith with the NPT:

... amounts to a standard of behaviour and mutual expectations which the countries of the world impose upon each other to reduce the risk of global nuclear war and also the risk of the problems which so often arise over the possession of nuclear weapons.

Without such standards, mutual expectations and controls, peaceful international trade in nuclear material and technology would be impossible.<sup>27</sup>

4.32 The Uniting Church of Australia Justice and International Commission, Synod of Victoria and Tasmania, and Friends of the Earth (FoE) point out that at the 2010 Nuclear Non-Proliferation Treaty Review Conference, 118 non-aligned nations complained that the United States, in reaching a nuclear cooperation treaty with India, had given a country not party to the NPT more benefits than NPT signatories.<sup>28</sup>

4.33 Associate Professor Tilman Ruff, representing ICAN, summarises the potential risks associated with reaching nuclear cooperation agreements with India:

It has been said before, but it has been said with increasing urgency and reality, that that treaty, which is really the linchpin of the global regime that embodies this crucial obligation on the part

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24 Mr Rovere, *Submission 2*, p. 3.

25 Mr Rovere, *Committee Hansard*, Melbourne, 18 May 2015, p. 7.

26 Mr Carlson, *Committee Hansard*, Canberra, 9 February 2015, p. 5.

27 Mr Walker, *Committee Hansard*, Canberra, 9 February 2015, p. 9.

28 The Uniting Church of Australia Justice and International Commission, Synod of Victoria and Tasmania, *Submission 8*, p. 4; and FoE, *Submission 14*, p. 5.

of the nuclear arms states to disarm in exchange for those who do not have the weapons not acquiring them, is really at risk of unravelling.<sup>29</sup>

## Comprehensive test ban treaty

- 4.34 India is not a party to the *Comprehensive Nuclear Test Ban Treaty* (CTBT). However, India has undertaken a unilateral moratorium on weapons testing.<sup>30</sup>
- 4.35 According to Crispin Rovere, India has a strong incentive to abrogate its moratorium. India has not successfully detonated a thermonuclear (hydrogen) device<sup>31</sup>, and is therefore concerned about the effectiveness of its deterrent.<sup>32</sup>
- 4.36 At present, China has nuclear superiority over India, both in terms of the number of warheads and in terms of having successfully exploded a thermonuclear device. Mr Rovere argues that India may feel it necessary to test a thermonuclear device in order to achieve parity with China.<sup>33</sup>

## Missed opportunities

- 4.37 A number of participants to the inquiry view the proposed Agreement as a missed opportunity to obtain greater non-proliferation concessions from India.<sup>34</sup>
- 4.38 Crispin Rovere argues:  
... it is critical that we ask India to undertake all the obligations they would have if they were a party to the NPT as a nuclear armed state, and in this treaty we have not done that.<sup>35</sup>
- 4.39 John Carlson compares the proposed Agreement with that negotiated with France in 1982. At the time, France was not a signatory to the NPT, but the

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29 Associate Professor Ruff, (ICAN) *Committee Hansard*, Melbourne, 18 May 2015, p. 13.

30 Mr Rovere, *Submission 2*, p. 6.

31 Thermonuclear, or hydrogen, devices are an order of magnitude more powerful than nuclear (uranium or plutonium) devices.

32 Mr Rovere, *Submission 2*, p. 6.

33 Mr Rovere, *Submission 2*, p. 6.

34 Mr Carlson, *Submission 1*, p. 3.

35 Mr Rovere, *Committee Hansard*, Melbourne, 18 May 2015, p. 8.

Agreement required France to meet the obligations of the NPT, resulting in France eventually signing the NPT in 1992.<sup>36</sup>

4.40 The key NPT provisions Mr Carlson believes should be applied in the proposed agreement are:

- a commitment to pursue nuclear disarmament;
- a full separation of civilian and military nuclear facilities;
- signing the CTBT;
- real support for a fissile material cut-off treaty; and
- placing all imported nuclear material under IAEA safeguards.<sup>37</sup>

4.41 Crispin Rovere points out that India's need for imported nuclear fuel provides scope for the negotiation of nuclear cooperation agreements that significantly improve nuclear non-proliferation outcomes.

4.42 For example, the proposed Agreement could have required India to ratify the CTBT if the United States Senate does so. This obligation would match an obligation made by China, and would consequently not prejudice India.<sup>38</sup>

4.43 Although an ongoing halt to nuclear weapons testing was one of the Nuclear Suppliers' Group's conditions for the sale of nuclear materials to India, the proposed Agreement does not specifically provide that supplies of nuclear materials will cease in the event of India resuming weapons testing.<sup>39</sup>

4.44 However, during the public hearings, ASNO gave a strong indication that the Australian Government would consider a resumption of nuclear testing to be a breach of the proposed Agreement:

... if India were to conduct a nuclear test, Australia could invoke article 14 to cease cooperation and potentially to terminate the agreement immediately.<sup>40</sup>

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36 Mr Carlson, *Submission 1*, p. 2.

37 Mr Carlson, *Submission 1*, pp. 3–4.

38 Mr Rovere, *Submission 2*, p. 8.

39 Mr Rovere, *Submission 2*, p. 6.

40 Dr Floyd, ASNO, *Committee Hansard*, Canberra, 12 February 2015, p. 2.



## The way forward

- 4.45 The evidence before the Committee indicates that nuclear cooperation with India is probably the biggest issue in nuclear non-proliferation for some decades.
- 4.46 The evidence suggests that nuclear cooperation with India is opposed by the bulk of signatories to the NPT and may destabilise the international non-proliferation architecture.
- 4.47 On the other hand, India cannot join the NPT:  
... given that it has a more powerful strategic nuclear rival on its border, China, and a much weaker, unstable nuclear rival on another border, Pakistan, it is not realistic to ask them to do that.<sup>41</sup>
- 4.48 Forty years of isolation under the NPT has not produced nuclear disarmament on the Indian subcontinent. In essence, the proposed Agreement is an effort to try a different approach. Australia is not alone in adopting this new approach. In reaching its decision to allow the export of nuclear materials to India, the Nuclear Suppliers' Group:  
... wanted to see India brought more into the nuclear non-proliferation mainstream.<sup>42</sup>
- 4.49 According to John Carlson, states that have negotiated nuclear cooperation agreements with India:  
... are prepared to supply India for civil purposes for two reasons: one is to see modern, safe technology available in India – I think there is an important nuclear safety aspect to this. Another reason is to encourage India to take up international norms in this area – things like no testing and so on.<sup>43</sup>
- 4.50 India's need for nuclear materials could produce compounding pressure on the Indian Government to meet international non-proliferation norms:  
... the more India becomes dependent for power generation on imported technology and imported fuel, the more this acts as a moderating factor on its behaviour. It would make India hesitate to, for instance, conduct further nuclear tests if the consequence would be an immediate cut-off of fuel for all the imported reactors.<sup>44</sup>

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41 Mr Rovere, *Committee Hansard*, Melbourne, 18 May 2015, p. 8.

42 Dr Floyd, ASNO, *Committee Hansard*, 15 June 2015, p. 6.

43 Mr Carlson, *Committee Hansard*, Canberra, 9 February 2015, p. 5.

44 Mr Carlson, *Committee Hansard*, Canberra, 9 February 2015, p. 5.

4.51 Further:

Bringing India into this tradition will continue to underpin the assurance of peaceful use and allow the two nations to work together on enhancing the non-proliferation and safeguards system.<sup>45</sup>

4.52 The Committee believes that, as an approach to non-proliferation, engaging with India to bring it into the nuclear non-proliferation mainstream will only work if India makes genuine non-proliferation advances. Only genuine non-proliferation advances will ameliorate the potential risk to the non-proliferation framework perceived by the bulk of signatories to the NPT.

4.53 Consequently, should the proposed Agreement be ratified, the Committee urges the Australian Government to commit significant diplomatic resources to encouraging India to become a party to the CTBT, and to negotiate a fissile material cut-off treaty.

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### **Recommendation 1**

4.54 **The Committee urges the Australian Government to commit significant diplomatic resources to encouraging India to become a party to the Comprehensive Test Ban Treaty, and to negotiate a fissile material cut-off treaty.**

4.55 Further, the Committee recommends the Government consider facilitating the negotiation of a nuclear arms limitation treaty for the Indian subcontinent region. Such a treaty could feasibly have an initial goal of preventing the development of thermonuclear weapons by India and Pakistan, and prevent the deployment of such weapons to the region by China.

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45 Dr Vanessa Guthrie, Board Member, Minerals Council of Australia, *Committee Hansard*, Canberra, 9 February 2015, p. 14.

**Recommendation 2**

- 4.56 **The Committee recommends the Australian Government considers facilitating the negotiation of a nuclear arms limitation treaty for the Indian subcontinent region. Such a treaty could feasibly have an initial goal of preventing the development of thermonuclear weapons by India and Pakistan, and prevent the deployment of such weapons to the region by China.**

