
The New Zealand and German Legal Waste Systems — Status Quo and Current Movements

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Coffee to go, single-use plastic bags, vegetables and fruit wrapped in plastic packaging, plastic cutlery, plates and cups — our modern lifestyle is flooded with plastic waste. In contrast, the negative effects of waste and the question of what happens after it is thrown away are often left unaddressed. This article considers the issue in the context of the legal waste systems of two industrial states: New Zealand and Germany. The similarities and differences between both regimes are examined in order to assess if they can provide appropriate answers. The current waste situations in both countries as well as their embedment in the legal framework of international obligations and national legislation are discussed. The focus is on the main pieces of waste management legislation — the New Zealand Waste Minimisation Act 2008 and the German Waste Management Act (KrWG). It will be seen that both countries are facing big waste problems and challenges in the 21st century even though their international images suggest something else: the “clean and green” New Zealand with its magnificent natural landscape; and Germany with its high international reputation in waste separation and recycling technologies. There might be different starting positions and different ways to deal with those challenges — but finally the problems are the same. In conclusion, various political and social

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movements and the promised waste policies of the newly elected New Zealand Government are outlined in the light of recent events.

1. INTRODUCTION

“Solid wastes” are the discarded leftovers of our advanced consumer society. This growing mountain of garbage and trash represents not only an attitude of indifference toward valuable natural resources, but also a serious economic and public health problem.¹

More than 40 years have passed since the former President of the United States, Jimmy Carter, delivered his “Environmental Message” to Congress. But his statement is still relevant with regard to the great global problem of increasing amounts of waste all over the world. Furthermore, from a sustainability point of view, the growing mountain of waste represents one of the 21st century’s major challenges.² No longer simply useless trash to be disposed of or discarded, waste has become an important economic asset and a whole waste management industry has formed. Since the US Congress was confronted with the serious problems of increasing waste in the 1970s, a legal framework at the international but also at national level developed and the new legal area of waste management law was born. But what does it look like and is this area of law sophisticated enough and capable of solving the problems arising from our so-called “waste society”?

This article will examine this question from two different angles: the New Zealand and German legal waste systems. One of the main concerns is to identify the progress of the status quos of both legal regimes with regard to their international frameworks and historical backgrounds. The respective waste situations in New Zealand and Germany are outlined in order to give an overview of the starting positions. Differences between both countries will already be seen at this level. Next, each legal waste system is described with their embedment in international obligations and national legal structure. The focus of the New Zealand legal system will be on the Waste Minimisation Act 2008³ and its relationship to the Resource Management Act 1991⁴ and other

1 Jimmy Carter, 39th President of the United States “The Environment Message to the Congress” (Washington DC, 23 May 1977).

2 See further Katharina Kummer Peiry, Andreas R Ziegler and Jorun Baumgartner (eds) *Waste Management and the Green Economy: Law and Policy* (Edward Elgar, Cheltenham, 2016) at 2.

3 Waste Minimisation Act 2008.

4 Resource Management Act 1991 [RMA].

environmental statutes. The main part of the German analysis will deal with the correspondent “Waste Management Act” — the Kreislaufwirtschaftsgesetz (KrWG)⁵ — its structure, provisions and instruments. After having given an overview of both legal waste regimes, the similarities and differences will be identified and a conclusion drawn as to which of the two systems meets the upcoming waste challenges in a more promising way. Finally, current political and social movements regarding waste in New Zealand will be outlined and a brief outlook on the promised policies of the New Zealand Government will be given.

2. LEGAL STATUS QUO

The current status quos of the New Zealand and German legal waste systems is one of the areas of focus of this article. Only by understanding the legal framework and the embedment in international obligations and the national legal structure of both legal waste regimes, can the whole legal status quos be identified. The historical background as well as the current waste situation of both countries emphasise the importance and relevance of this area of law.

2.1 Waste Situation

2.1.1 Germany

Thinking about waste separation and recycling, Germany comes to mind immediately for many people. In fact, Germany was the first industrial nation to separate waste⁶ and the image of the German waste separation society can hardly be denied. The Germans separate their municipal waste neatly and have great confidence in their recycling and waste management system.⁷ But what about the real waste situation in Germany: is this country a waste management role model and as good as it seems to be?

The truth is more controversial than it might appear at first glance. On the one hand, Germany is a leader in the recycling and recovery of municipal and household waste and its recycling industry is considered one of the best in the world.⁸ Germany is sometimes even described as the world champion in

5 Kreislaufwirtschaftsgesetz [KrWG] 2012 (GER).

6 Claus U Eckert “Müll-Meister Deutschland” (podcast, 29 June 2017) Zweites Deutsches Fernsehen <www.zdf.de>.

7 Eckert, above n 6.

8 Niall McCarthy “The Countries Winning The Recycling Race” (4 March 2016) Forbes <www.forbes.com>; Eckert, above n 6.

recycling.⁹ But at the same time, Germany also bears another title: European champion in packaging waste.¹⁰ Every year, 17.8 tonnes of packaging waste — almost solely plastic waste — accrue.¹¹ The reasons for the unglamorous leading position are first the aforementioned trust and confidence in the large and influential German recycling industry. Secondly, the higher plastic wastage is caused by a changed lifestyle with lots of single and smaller households, self-service in supermarkets, online shopping and changed marketing strategies of the producers.¹² There is a trend to even smaller pre-proportioning of goods, and packaging is nowadays used to influence and convince the consumer to buy less package content at higher prices.¹³ While producers benefit,¹⁴ the amount of waste increases: in 1995 every citizen produced 19 kilograms of packaging waste per year but today the amount has doubled to 39 kilograms.¹⁵ In addition, packaging simplifies the transport of goods, extends the shelf-life of products, and is necessary due to higher health standards and requirements of hygiene.¹⁶ Consumer behaviour is therefore not likely to change any time soon and that is why research is focused on new high-end packaging material rather than on the effort to avoid waste.¹⁷

When it comes to municipal waste, Germans produce 45 tonnes every year,¹⁸ of which two-thirds are recycled.¹⁹ In addition, more than six billion plastic bags are used per annum in Germany — 75 plastic bags per capita.²⁰ The big problem, though, is the rapid rise of disposable products.²¹ The most common example is the boom of coffee to go and the usage of non-recyclable paper cups with plastic coating.²² During the last few years, the amount of disposable products increased by 30 per cent.²³ In Berlin alone, 20,000 coffee-

9 Dieter Nürnberger “Deutschland und sein Müll: Getrennt, geordnet — aber nicht immer verwertet” (27 August 2017) Deutschlandfunk <www.deutschlandfunk.de>.

10 Eckert, above n 6.

11 Eckert, above n 6.

12 Nürnberger, above n 9; Eckert, above n 6.

13 Eckert, above n 6.

14 Kiyō Dörrer and Benjamin Wirtz “Deutschland macht am meisten Müll” (podcast, 16 June 2017) Deutsche Welle <www.dw.com/de>.

15 Eckert, above n 6.

16 Eckert, above n 6.

17 Eckert, above n 6.

18 Umweltbundesamt “Abfallaufkommen” (10 August 2017) UBA <www.umweltbundesamt.de>.

19 OECD *Environment at a Glance 2015: OECD Indicators* (OECD Publishing, Paris, 2015) at 50; McCarthy, above n 8; Nürnberger, above n 9.

20 Christoph Schulz “Plastik-Müll — Zahlen, Fakten, Studien 2016/2017” (2017) CareElite <www.careelite.de>.

21 Eckert, above n 6; Nürnberger, above n 9.

22 Nürnberger, above n 9.

23 Eckert, above n 6.

to-go cups are sold *per hour*.²⁴ On the other hand, the Federal Environment Agency states that the total amount of waste decreased by 14 per cent in the period between 2000 and 2015.²⁵ This might be in contrast with the numbers mentioned above, but the Federal Environment Agency admits at the same time that the reduction is traced back to the fact that demolition waste decreased due to economic fluctuation.²⁶ The total amount of waste in Germany, however, is about 400 million tonnes per year.²⁷

Germany might be number one in waste separation and recycling of municipal waste but it also produces the most packaging waste in Europe and does not hold a leading position in waste prevention or reduction. The recycling industry has great influence and benefits from waste generation. In conclusion, the German waste management system works very well but it cannot be denied that the great amount of waste is a real problem even in Germany.

2.1.2 New Zealand

New Zealand enjoys a high international reputation for its “clean and green” image.²⁸ Thinking about New Zealand is mainly about magnificent landscapes and scenery, untouched nature and a close connection to the environment rather than being concerned about waste. When focusing on the waste situation, though, another aspect of the “clean and green” paradise becomes visible.

According to the 2015 OECD report,²⁹ New Zealand occupied last place in recycling municipal waste with a landfill rate of 100 per cent.³⁰ New Zealand produced even more municipal waste per capita than Germany and its waste generation was not inferior to the worst-ranked European states.³¹ However, the statements of the OECD might not be correct and can seriously be doubted. The Ministry for the Environment immediately responded to the criticism. There are recycling and recovery facilities all over the country: kerbside or drop-off recycling collection services that take glass, metal, paper and plastics are offered by all 67 local authorities.³² It can therefore not be denied that the

24 Nürnbergger, above n 9.

25 Umweltbundesamt, above n 18.

26 Umweltbundesamt, above n 18.

27 Nürnbergger, above n 9.

28 Rhoanna Stanhope “A Vision for the Future — The Concept of Sustainable Development in the Netherlands and New Zealand” (2000) 4 NZJEL 147 at 170–171.

29 OECD is the official abbreviation for the Organisation for Economic Co-operation and Development.

30 OECD, above n 19, at 50.

31 At 49.

32 Eric Frykberg “Ministry blasts report on NZ’s environment record” (28 October 2015) RNZ <radionz.co.nz>.

percentage of recycling is higher than stated in the report. Currently, there are 381 consented non-levied landfills — 35 per cent less than in 2014.³³

The country's largest waste and resource recovering specialist, Waste Management NZ, claims that 30 per cent of the waste collected is used for recycling,³⁴ and the Ministry for the Environment quotes an overall recycling rate of 43 per cent and a landfill rate of 57 per cent.³⁵ Furthermore, Waste Management NZ maintains that one of its landfills in North Auckland is considered one of the best in the southern hemisphere.³⁶ The landfill technology is said to use high-tech processes and adhere to world-class standards.³⁷ The company wants to offer a sustainable service for its customers, the environment and the people living in New Zealand and tries to meet its requirements with the production of “green energy”. Up to 95 per cent of the emerging landfill gas is collected and given back to the people in the form of “green” electricity for currently more than 18,000 houses.³⁸

The household sector in New Zealand generates more than 1 million tonnes of waste to landfill every year³⁹ and 2.461 tonnes of municipal waste were disposed of at municipal landfills in 2011⁴⁰ — similar to the 2.531 tonnes in 2010.⁴¹ Approximately two-thirds of this amount could have been potentially recycled, recovered or reused.⁴² Between 2004 and 2009 the recovery of packaging waste increased by 26 per cent and the participation of households in recycling increased up to 94 per cent in 2010.⁴³ Organic waste was the largest proportion of disposed waste with 28 per cent in 2007–2008 and has increased together with plastic, glass, and nappies and sanitary waste.⁴⁴ In contrast, the amount of rubble, metal and paper waste has decreased.⁴⁵

33 Ministry for the Environment *National Waste Disposal Survey — Final Report* (Ministry for the Environment, CR 275, July 2017) at 7–8.

34 Waste Management NZ “Waste Management Overview” (podcast, 21 April 2015) YouTube <www.youtube.com>.

35 Frykberg, above n 32.

36 Waste Management NZ, above n 34.

37 Waste Management NZ, above n 34.

38 Waste Management NZ, above n 34.

39 Bruce Middleton *Household sector waste to landfill in New Zealand* (Ministry for the Environment, CR 192, November 2014) at 18.

40 Ministry for the Environment “Quantity of solid waste sent to landfill indicator update” (INFO 654, October 2012) MfE <www.mfe.govt.nz>.

41 Ministry for the Environment “Solid waste disposal, 2010 environmental snapshot” (INFO 610, July 2011) MfE <www.mfe.govt.nz>.

42 Ministry for the Environment, above n 40.

43 Ministry for the Environment, above n 40.

44 Ministry for the Environment *Environmental Report Card: Solid Waste Composition* (INFO 420, July 2009) MfE <www.mfe.govt.nz> at 6, 8.

45 At 8.

Unlike the misleading impression of the OECD report, there is a waste management industry in New Zealand. But the report shows in an impressive but alarming way that there is also a huge lack of information about waste in New Zealand.⁴⁶ The reasons for this will be discussed in the following section but the fragmentation of the legal waste system⁴⁷ and the responsibility of territorial authorities instead of central government⁴⁸ should already be mentioned at this point.

In conclusion, Germany and New Zealand are both facing huge waste problems even though the starting positions and external perceptions are different.

2.2 New Zealand Legal Waste System

The focus of the New Zealand legal waste system will be on its core, the Waste Minimisation Act 2008 (WMA), and its alterations compared to the Resource Management Act 1991 (RMA) as the main piece of legislation in environmental law.⁴⁹ Other national environmental statutes and international obligations will be outlined briefly, together with the legal framework and historical background. After giving an overview of the legal embedment, the definition of waste in New Zealand according to the WMA and its key provisions and instruments will be explained before the German counterpart is examined.

2.2.1 Legal framework

The New Zealand legal waste system consists of a range of international and national legal obligations and non-binding guidelines. Not all of them can be discussed in this article but a brief overview is given to understand the interdependence and interaction of waste law in New Zealand. The legal framework will be outlined from a historical point of view divided into international and national legislation.

(i) Historical background

Waste law is a comparatively new area of law. The reason for that can be found in history. In earlier times when there was almost solely organic material and

46 OECD *Environmental Performance Reviews: New Zealand 2017 Highlights* (OECD Publishing, Paris, 2017) at 6.

47 Inga Carlam "The Resource Management Act 1991 through External Eyes" (2007) 11 NZJEL 181 at 209; OECD *Environmental Performance Reviews: New Zealand 2007* (OECD Publishing, Paris, 2007) at 20; Stanhope, above n 28, at 171.

48 At 164, 170; Carlam, above n 47, at 204.

49 Ministry for the Environment "Legal framework for waste" (10 April 2014) MfE <www.mfe.govt.nz>.

long-lasting clothes and equipment, waste was not a problem because organic waste could be reused and the efficient and effective use of resources was necessary due to the technical and financial circumstances which existed.⁵⁰ Waste was disposed of on the premises and threats to human health were attempted to be avoided by responsible consumption practices.⁵¹ From 1873 onwards, waste implications on human health became more important because of growing urban communities and higher densities of inhabitants.⁵² As in Western Europe and North America, the starting point for implementing waste law and management can therefore be seen in the increased importance of public health rather than realising and focusing on the emerging issues and problems of huge amounts of waste.⁵³ Waste should be disposed of in order to be separated from the generator in accordance with the guidance principle of “public health”.⁵⁴ At this time, there was no consideration of preventing or reducing the generation of waste. With this “throw away” or “out of sight, out of mind” approach, the disposal of waste was rather seen as a solution than a problem — “away does not really exist”.⁵⁵ The emphasis on human health continued and can still be identified in the Local Government Amendment Act (No 4) 1996 (LGAA 1996).⁵⁶

The situation changed with continuously increasing urbanisation and density of inhabitants.⁵⁷ With new technical possibilities and inventions, packaging material was used and the waste generated was dumped on vacant land.⁵⁸ While some ratepayer-funded incineration facilities were established and used, the growing generation of waste exceeded capacity, and dumping at sea or filling solid waste in quarries were the consequences.⁵⁹

Finally, during the 1980s, the awareness of the expanding consumer society grew in New Zealand and all over the world and resulted in the main piece of environmental legislation, the Resource Management Act 1991 with its concept of sustainability.⁶⁰ Due to its importance, the implications of the RMA on the New Zealand legal waste system will be dealt with in the next section.

50 Helgard Wagener “The Waste Minimisation Act 2008 and the Ability of Territorial Authorities to Manage Solid Waste” (2009) 13 NZJEL 295 at 302.

51 At 302.

52 At 303.

53 At 297.

54 At 297, 303.

55 William McDonough and Michael Braungart *Cradle to Cradle: Remaking the Way We Make Things* (North Point Press, New York, 2002) at 27; Wagener, above n 50, at 297, 304.

56 Wagener, above n 50, at 304.

57 At 305.

58 At 305.

59 At 305.

60 At 307.

At the international level, awareness of the amount of waste and inefficiently used resources traced back to the growing population and the recognition of the depletion of finite resources.⁶¹ In 1992, as a response to the Rio “Earth Summit”,⁶² the concept of “eco-efficiency” and its “life-cycle approach”⁶³ developed by the World Business Council for Sustainable Development arose.⁶⁴ While waste was seen as an unwelcome by-product until the 1970s, waste management law and waste traffic developed at national and international level from the 1980s.⁶⁵

(ii) International obligations

New Zealand is party to the most important international agreements covering provisions about waste. The Basel Convention⁶⁶ that was ratified by New Zealand in 1994⁶⁷ aims to reduce the amount of waste and restricts and regulates the international trade of hazardous waste. The Convention stresses the principle of “generator responsibility” and wants its signatories to minimise the environmental effects of hazardous waste, its movement and disposal.⁶⁸ In accordance with the allowance of the Convention to implement regional agreements, New Zealand entered into the Waigani Convention⁶⁹ about hazardous waste trade in the South Pacific and the OECD Hazardous Waste Decision about hazardous waste trade between OECD countries.⁷⁰ The traffic

61 At 298.

62 United Nations Conference on Environment and Development [UNCED] (Rio de Janeiro, 1992).

63 Peiry, Ziegler and Baumgartner, above n 2, at 4.

64 Wagener, above n 50, at 298.

65 Carlam, above n 47, at 182; Peiry, Ziegler and Baumgartner, above n 2, at 3.

66 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal 1673 UNTS 57 (opened for signature 22 March 1989, entered into force 5 May 1992).

67 Ministry for the Environment “Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal” (17 September 2007) MfE <www.mfe.govt.nz>.

68 Ministry for the Environment, above n 67.

69 Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes within the South Pacific Region (Waigani Convention) 2161 UNTS 91 (opened for signature 16 September 1995, entered into force 21 October 2001).

70 OECD Decision of the Council concerning the Control of Transboundary Movements of Wastes Destined for Recovery Operations C (2001)107/FINAL (14 June 2001); Ministry for the Environment, above n 67. See further Pierre Portas “Recycling and resource recovery under the Basel Convention: historical analysis and outlook” in Katharina Kummer Peiry, Andreas R Ziegler and Jorun Baumgartner (eds) *Waste Management and the Green Economy: Law and Policy* (Edward Elgar, Cheltenham, 2016) 56; Juliette Voïnov Kohler “A paradigm shift

and trade of waste is also part of World Trade Organization (WTO) law. With the growth of the recycling and waste industry sectors, waste became a valuable resource and profitable to trade with.⁷¹ However, WTO law and its relationship to waste law is beyond the scope of this article.⁷²

In 2004 New Zealand ratified the Stockholm Convention⁷³ that aims to protect human health and the environment by banning some toxic chemicals.⁷⁴ The principle of sustainable development was implemented by Agenda 21, a legally non-binding outcome of the aforementioned “Earth Summit” in Rio 1992 that provides guidance on how to achieve sustainable development.⁷⁵ Agenda 21’s key points can be summarised as follows: in a holistic approach with a long-term future vision and in consideration of the precautionary principle, sustainable development should be pushed forward.⁷⁶ “Sustainable development” means that environmental protection and social and economic development should be balanced.⁷⁷

(iii) National legislation and guidelines

As the main focus of this article is on the WMA, other relevant national legislation and guidelines can only be outlined briefly, with a slightly closer look at the RMA.

(a) *Resource Management Act 1991*⁷⁸

The purpose of the RMA according to s 5(1) “is to promote the sustainable management of natural and physical resources”. The definition of sustainable management is given in s 5(2). The Act follows a so-called “overall broad judgement approach” which means that it tries to consider social, economic

under the Basel Convention on Hazardous Wastes” in Katharina Kummer Peiry, Andreas R Ziegler and Jorun Baumgartner (eds) *Waste Management and the Green Economy: Law and Policy* (Edward Elgar, Cheltenham, 2016) 80.

71 Peiry, Ziegler and Baumgartner, above n 2, at 4–5.

72 See Mirina Grosz “Transboundary movements of wastes and end-of-life goods under WTO law” in Katharina Kummer Peiry, Andreas R Ziegler and Jorun Baumgartner (eds) *Waste Management and the Green Economy: Law and Policy* (Edward Elgar, Cheltenham, 2016) 96 concerning the relationship between WTO law and waste.

73 Stockholm Convention on Persistent Organic Pollutants 2256 UNTS 119 (opened for signature 22 May 2001, entered into force 17 May 2004).

74 Ministry for the Environment “Stockholm Convention on Persistent Organic Pollutants” (15 December 2016) MfE <www.mfe.govt.nz>.

75 Stanhope, above n 28, at 149.

76 At 149 for the key provisions.

77 Peiry, Ziegler and Baumgartner, above n 2, at 1.

78 See in detail on the RMA Kenneth Palmer “Resource Management Act 1991” in Derek Nolan (ed) *Environmental and Resource Management Law* (5th ed, LexisNexis, Wellington, 2015) 100.

and environmental interests and is written in a very general manner in order to cover most of the environmental law.⁷⁹ It provides a framework for managing the effects of activities on the environment and was created “to achieve a more coordinated, streamlined, and comprehensive approach to environmental management”.⁸⁰

Section 5(2)(c) provides that any adverse effects of activities on the environment should be avoided, remedied, or mitigated. But the RMA does not require territorial authorities to provide or adhere to any system⁸¹ of waste management although local government is the body with the main responsibility.⁸² Even though environmental impacts of waste facilities such as disposal facilities, recycling plants and cleanfills are controlled,⁸³ the RMA does not contain specific provisions concerning the control of dumping or incineration of waste.⁸⁴ In accordance with s 43, a national environmental standard (NES) may be prescribed by the Governor-General. There is a NES for “Assessing and Managing Contaminants in Soil to Protect Human Health”⁸⁵ but there is none in force today concerning waste directly. A NES for the “Outdoor Storage of Tyres”⁸⁶ is proposed but not yet in force and is discussed further below.

The RMA does not provide a comprehensive⁸⁷ legal waste regime.⁸⁸ Only an “end-of-pipe” consideration of the environmental effects of disposal is intended.⁸⁹ Nonetheless, it is the main instrument of enforcement.⁹⁰ It also states that resource consents are required for disposal facilities.⁹¹ The fundamental criticism of the RMA mainly concerns its lack of consistency and

79 Peter Fuller “The Resource Management Act 1991: ‘An Overall Broad Judgment’” (2003) 7 NZJEL 243 at 247, 255; Carlam, above n 47, at 190, 194, 203, 206; Stanhope, above n 28, at 167.

80 Ministry for the Environment “Introduction to the RMA” (18 April 2017) MfE <www.mfe.govt.nz>.

81 Wagener, above n 50, at 307; Ministry for the Environment “About compliance, monitoring and enforcement by local authorities” (18 April 2017) MfE <www.mfe.govt.nz>.

82 Ministry for the Environment, above n 80; Carlam, above n 47, at 204.

83 Ministry for the Environment, above n 49.

84 Wagener, above n 50, at 307.

85 Ministry for the Environment “National Environmental Standards” (28 August 2017) MfE <www.mfe.govt.nz>.

86 Ministry for the Environment, above n 85.

87 Stanhope, above n 28, at 168, 171.

88 Coming to the same conclusion, Wagener, above n 50, at 308.

89 At 308.

90 Simon A Schofield “Waste Management Law in New Zealand” (2010) 14 NZJEL 223 at 238; see further Janette Campbell “Statutory remedies: the enforcement provisions of the Resource Management Act 1991” in Derek Nolan (ed) *Environmental and Resource Management Law* (5th ed, LexisNexis, Wellington, 2015) 1337.

91 See RMA, pt 6, s 87(e); Wagener, above n 50, at 308.

its fragmentation,⁹² combined with a lack of guidance from central government.⁹³ It does not prescribe how councils are to carry out their functions.⁹⁴ In addition, its “overall broad judgement approach” and concept of sustainable management fails with regard to economic efficiency because it does not cover private costs and costs of used resources.⁹⁵ Waste management law is not covered comprehensively even though an NES could have been installed.⁹⁶ The absence of mandatory standards and requirements is one of the main points of criticism.⁹⁷ Furthermore, only the negative effects of disposal are considered without preparing instruments to reduce disposal.⁹⁸ The RMA fails to address the causes of environmental problems.⁹⁹ Finally, no waste hierarchy is included.¹⁰⁰ The OECD concluded in 2007 that New Zealand’s “fragmented legislative and institutional framework for waste management has stymied efforts to take a ‘cradle-to-grave’ approach to materials management”.¹⁰¹

In conclusion, even though the RMA provides an overarching guide,¹⁰² it does not contain a specific guidance principle,¹⁰³ and does not constitute a comprehensive legal waste regime on its own.

(b) Other relevant legislation

Other especially relevant legislation in waste management law is the Local Government Act 2002 (LGA). Together with the RMA and the WMA, the LGA is the main source of this area of law at national level.¹⁰⁴ It aims to incorporate the community in local decision-making and promotes their well-being.¹⁰⁵ The responsibilities of local authorities to collect and dispose of solid waste is emphasised as a main task.¹⁰⁶ According to its purpose in s 3(c) and (d), the LGA “promotes the accountability of local authorities to their communities”

92 Carlam, above n 47, at 209.

93 See Schofield, above n 90, at 236.

94 Ministry for the Environment, above n 81; Fuller, above n 79, at 269; Carlam, above n 47, at 197.

95 Michael Pickford “Economic Efficiency and the Resource Management Act” (2014) 18 NZJEL 149 at 149; and see, in the same direction that costs have to be considered more, JR Jackson “The Role of Economics in the RMA (or Vice Versa)” (1999) 3 NZJEL 19.

96 Stanhope, above n 28, at 173; Carlam, above n 47, at 181.

97 Carlam, above n 47, at 195.

98 Stanhope, above n 28, at 168.

99 At 168.

100 Wagener, above n 50, at 308.

101 OECD, above n 47, at 20.

102 Ministry for the Environment, above n 80.

103 Carlam, above n 47, at 207.

104 Ministry for the Environment, above n 49.

105 Ministry for the Environment, above n 49.

106 Ministry for the Environment, above n 49.

and “provides for local authorities to play a broad role in meeting the current and future needs of their communities ...”. In the LGAA 1996 the “5R” waste hierarchy¹⁰⁷ — that was finally repealed by s 61 of the WMA — was introduced for the first time.¹⁰⁸ The LGA provided that waste management plans had to be adopted by each local authority.¹⁰⁹ Under the LGA, extended bylaw powers as well as further power and allowance for local authorities to establish their own facilities in accordance with the “5R” approach were implemented.¹¹⁰

Several other Acts completing the national waste management law regime that cannot be part of this article are named in order to illustrate the complexity and highly fragmented nature of New Zealand’s legal waste system: the Litter Act 1979, the Climate Change Response Act 2002, the Health and Safety in Employment Act 1992, the Hazardous Substances and New Organisms Act 1996 and the Ozone Layer Protection Act 1996.¹¹¹

(c) *New Zealand Waste Strategy 2010*

In response to criticisms about national inaction and a lack of leadership and guidance, the Ministry for the Environment adopted *The New Zealand Waste Strategy: Towards zero waste and a sustainable New Zealand* in 2002 in order to tackle the increasing waste problems.¹¹² While the 2002 Strategy filled a gap in the legal framework towards a “zero waste” approach, it was too early to achieve the ambitious targets and a zero-waste society.¹¹³

In 2010, after a first review in 2007, *The New Zealand Waste Strategy: Reducing harm, improving efficiency* with a more flexible approach than its predecessor was adopted and replaced the 2002 Strategy.¹¹⁴ After the introduction of the WMA in 2008, the revised Strategy is “now playing an overarching role in the comprehensive toolkit for managing and minimising waste”¹¹⁵ and can be seen as a guideline for waste management law. The 2010 Strategy “sets out the Government’s long-term priorities for waste management and minimisation”.¹¹⁶

There are two main targets: harmful effects of waste should be reduced and the efficiency of resource use should be improved.¹¹⁷ In order to achieve

107 The “5R” approach will be described in detail in part 2.2.2 below.

108 Wagener, above n 50, at 308–309.

109 At 309.

110 At 310–311.

111 Ministry for the Environment, above n 49.

112 Wagener, above n 50, at 311.

113 Ministry for the Environment *The New Zealand Waste Strategy: Reducing harm, improving efficiency* (ME 1027, October 2010) at 3.

114 At 3.

115 At 3.

116 At 2.

117 At 2.

these goals, everyone — communities and companies in the same way as local government — is encouraged to assess the harmful effects of waste on the environment and human health in order to take appropriate actions.¹¹⁸ In addition, the same target audience is requested to improve the efficiency of resource use to reduce the impacts on human health and the environment.¹¹⁹

The more flexible approach enables adaptation to different situations and ensures that waste minimisation activities are appropriate for local needs and special circumstances.¹²⁰ The Ministry for the Environment's self-appointed primary role is to administer the Waste Minimisation Act 2008 that will be examined next.¹²¹

2.2.2 Waste Minimisation Act 2008

The WMA was the first waste legislation with provisions at national level.¹²² Under s 61, pt 31 of the Local Government Act 1974 that came into effect with the adoption of the LGAA 1996 was repealed. Pursuant to s 3, its purpose is to encourage waste minimisation and to decrease the disposal of waste in order to protect the environment and to provide environmental, social, economic, and cultural benefits.

The key points of the WMA as a core piece of the New Zealand waste management law will be explained below. The results will be compared with the German Waste Management Act, the KrWG. In order to provide a similar basis of comparison, both pieces of legislation will be analysed in their definition of waste, their waste hierarchy, and their instruments and key provisions.

(i) Definition of waste

Whether something is seen as waste or not, the definition of waste is crucial for the application of waste management law. Appropriate measures can only be taken and instruments can only take effect if what is meant by waste is known. The WMA includes a narrower definition of waste than its predecessors. A short overview of the development of previous waste definitions helps to understand the current one under the WMA.

The *Carter Holt Harvey Ltd v North Shore City Council* case shows the different interpretations of waste of the High Court and the Court of Appeal before the WMA finally settled the dispute. The case was about the validity of bylaws of the North Shore City Council that required payment of a waste levy

118 At 5.

119 At 5.

120 At 2.

121 Ministry for the Environment "Ministry for the Environment's role and responsibilities" (24 March 2017) MfE <www.mfe.govt.nz>.

122 Wagener, above n 50, at 312.

from waste collectors concerning privately acquired recyclable paper.¹²³ The Council argued in accordance with its bylaws that such recyclable paper from private residences was waste.¹²⁴ Carter Holt Harvey Ltd — a manufacturer of paper products in New Zealand — argued that recyclable paper acquired by contractual agreement with owners was not waste and those bylaws were therefore invalid.¹²⁵

The High Court interpreted the definition of waste in a broad way including recyclable and disposed material with reference to the intention of Parliament and the extensive purpose of pt 31 of the LGA as well as the ordinary use of the word “waste”, stating that “‘waste’ is material that is no longer wanted by its owner and which, but for commercial or other initiatives to reuse it or recycle it, would be discarded”.¹²⁶ The recyclable paper acquired by Carter Holt Harvey was therefore seen as waste.¹²⁷

The Court of Appeal, by contrast, defined waste in a narrower way and stressed the requirement of abandonment, stating that “the test of whether a former owner has abandoned material does ... accord with common usage and common sense ... [and] provides a clear and practical way of distinguishing between what is ‘waste’ and what is not”.¹²⁸ The recyclable paper at issue was therefore not seen as waste.¹²⁹ The judgment of the Court of Appeal was criticised because of the decisive requirement of abandonment. Abandonment and the passing of ownership would not answer the principal question whether the material should separately be considered to be waste or not.¹³⁰

The WMA, however, maintained the narrower interpretation of waste largely commensurate with the definition of the Court of Appeal.¹³¹ However, a more flexible approach was adopted by not referring to the controversial term of abandonment any more.¹³² According to s 5(1), “waste means anything disposed of or discarded; and includes a type of waste that is defined by its composition or source (for example, organic waste, electronic waste, or construction and demolition waste); and to avoid doubt, includes any component or element of diverted material, if the component or element is disposed of or discarded”.

123 *Carter Holt Harvey Ltd v North Shore City Council* [2006] 2 NZLR 787 (HC) at [1], [4].

124 *Carter Holt Harvey Ltd v North Shore City Council* [2007] NZCA 420, [2008] 1 NZLR 744 at [11].

125 At [7], [9].

126 *Carter Holt Harvey Ltd v North Shore City Council*, above n 123, at [89], [94].

127 At [95].

128 *Carter Holt Harvey Ltd v North Shore City Council*, above n 124, at [33], [35].

129 At [38].

130 Kenneth Palmer “*Carter Holt Harvey Ltd v North Shore City Council* [2007] NZCA 420” (2008) 7 BRMB 102 at 102.

131 Wagener, above n 50, at 328.

132 Schofield, above n 90, at 228–229.

With this definition, the point of view of the owner and his intentions are decisive as to whether or not a material is seen as waste.¹³³

(ii) Waste hierarchy

As stated above, the New Zealand waste hierarchy was introduced for the first time in the reviewed s 537 of the LGAA 1996. The new method is also called the “5R” approach and refers to the following five steps in this order: reduction, reuse, recycling, recovery, treatment and (residual waste) disposal. The hierarchy and the “5R” concept were maintained in the WMA. In s 44(a) that deals with waste management and minimisation plans, the same methods in descending order of importance can be found. It has to be noted that the five steps are interrelated and intertwined and not strictly isolated from each other.¹³⁴

Under s 5(1), *waste management and minimisation* is defined as “waste minimisation and treatment and disposal of waste” whereby *waste minimisation* covers “the reduction of waste and the reuse, recycling and recovery of waste and diverted material”. The exact definitions of the individual methods, also stated in s 5(1), are as follows.

Reduction as the first and most important step means “lessening waste generation ...”. *Reuse* is the “further use of waste or diverted material in its existing form for the original ... or for a similar purpose”. *Recycling* is ranked third and means “the reprocessing of waste ... to produce new materials”; while *recovery* as the fourth step can be described as the “extraction of material or energy from waste ... for further use or processing and includes making waste into compost”. The last and final step is treatment and residual waste disposal. *Treatment* means “subjecting waste to any physical, biological, or chemical process to change its volume or character so that it may be disposed of with no or reduced adverse effect on the environment ...”. *Disposal*, defined in s 6(1), is the “final ... deposit of waste into or onto land set apart for that purpose or the incineration of waste”.¹³⁵

The reality of the waste hierarchy, though, is that it is mentioned in waste management plans but not always followed. Recycling is the preferable method although ranked below reduction and reuse.¹³⁶

(iii) Instruments and key provisions

The key provisions and instruments of the WMA are outlined briefly in the following.¹³⁷ Besides the instruments below, the WMA allows for regulations

133 Wagener, above n 50, at 312.

134 Schofield, above n 90, at 225.

135 See Waste Minimisation Act 2008 [WMA], ss 5(1) and 6(1).

136 Wagener, above n 50, at 315.

137 See further Simon Reeves *Environmental Law in New Zealand* (Wolters Kluwer, AH Alphen aan den Rijn, 2011) at 187–189.

to be made for a mandatory report system to improve information on waste minimisation.¹³⁸ In addition, regulations can be made to control the disposal of products, materials or waste, and deposit fees, labelling of products or take-back services can be required.¹³⁹

(a) Responsibility of territorial authorities

Territorial authorities (local government) play the most important role in relation to waste management and minimisation.¹⁴⁰ According to ss 42(1) and 50 of the WMA, they must adopt and review waste management and minimisation plans (WMMPs). Under s 44(c) and (d) the WMMPs have to have regard to the New Zealand Waste Strategy, the waste hierarchy¹⁴¹ and the most recent waste assessments that have been undertaken in correspondence with s 51. Among other things, such assessments have to consider descriptions of the provided waste management and minimisation services and future demands (s 51(1)). The plans have to provide objectives and policies to achieve efficient and effective waste management and minimisation within the authority's district (ss 42, 43(2)(a)). The plans are controlled by central government in order to ensure some degree of national conformity¹⁴² and uniformity in accordance with the requirements of ss 48 and 49. Local government shall take appropriate actions such as incentives and disincentives in order to achieve the desired results of their services and facilities but they are not limited to a strict "cost recovery" or "user-pays" principle.¹⁴³ Furthermore, territorial authorities have the power to make bylaws that are consistent with their WMMP according to s 56(1) and (2).

The problem with the important role of local government under the WMA and the entire waste management law is that only a minimum standard of national uniformity can be achieved through controls and minimum requirements of the central government. The criticised fragmentation and the inaction of the central government could not be solved with the perpetuation of the dominant role of local authorities in the WMA.

Concerning general duties or responsibilities in waste management law, it has to be referred to the RMA because the WMA does not contain a special provision. The WMA only contains in pt 5 provisions about waste offences and liability after having contravened against the Act — for example, in case

138 Ministry for the Environment "Waste Minimisation Act" (24 March 2017) MfE <www.mfe.govt.nz>.

139 Ministry for the Environment, above n 138.

140 Schofield, above n 90, at 232.

141 Ministry for the Environment "Waste management and minimisation plans" (10 May 2017) MfE <www.mfe.govt.nz>; Wagener, above n 50, at 340.

142 Schofield, above n 90, at 233.

143 At 232.

of a breach against product stewardship. While offences and liability after infringement are not discussed in this article, responsibilities in connection with product stewardship will be examined below.

Section 17(1) of the RMA states that “every person has a duty to avoid, remedy, or mitigate any adverse effect on the environment arising from an activity carried on by or on behalf of the person ...”. This duty is addressed to the person who carries out the activity but also to any other person on whose behalf it is undertaken.¹⁴⁴ There is therefore no formal hierarchy of the polluter, owner and occupier to comply with this general environmental duty.¹⁴⁵

(b) Waste disposal levy

The waste disposal levy was introduced with the WMA and applies to waste disposed of at disposal facilities.¹⁴⁶ The revenue has to be used for funding waste minimisation activities undertaken by territorial authorities, the business sector and community groups. Its purpose is to “raise revenue for promoting and achieving waste minimisation; and increase the cost of waste disposal to recognise that disposal imposes costs on the environment, society, and the economy” (s 25). The rate of the levy¹⁴⁷ is still \$10 per tonne plus GST.¹⁴⁸ The Ministry for the Environment is responsible for administering the levy.¹⁴⁹ The Ministry’s role is to collect the money and information from liable facilities,¹⁵⁰ to review the effectiveness of this instrument every three years,¹⁵¹ and to distribute half of the money to territorial authorities,¹⁵² calculated on a population basis.¹⁵³ While the territorial authorities have to spend the money on waste minimisation measures in accordance with their WMMPs,¹⁵⁴ the remainder goes to the Waste Minimisation Fund which will be described below.¹⁵⁵

(c) Product stewardship

The instrument of product stewardship schemes was introduced to encourage every person involved in the whole life cycle of a product to share responsibility

144 Palmer, above n 78, at 182.

145 Schofield, above n 90, at 257; see further Ministry for the Environment *Discussion Document on Contaminated Sites Management* (2009) at 10.

146 WMA, s 26(1).

147 Section 27.

148 Ministry for the Environment “About the waste disposal levy” (9 May 2017) MfE <www.mfe.govt.nz>.

149 WMA, ss 37–40.

150 See ss 34(1), 40(1).

151 Section 39.

152 Ministry for the Environment, above n 148.

153 WMA, s 31(2).

154 Section 32(1).

155 Sections 30(c), 38.

in order to ensure effective reduction, reuse, recycling and recovery and to manage any environmental harm of the product when it becomes waste.¹⁵⁶

Two types of product stewardship are provided in ss 10 and 11 of the WMA: a voluntary scheme and a scheme required for priority products. Priority products are declared by the Minister for the Environment.¹⁵⁷ At this time, no priority products have been accredited yet,¹⁵⁸ although there are proposals to do so.¹⁵⁹ Several voluntary schemes, however, have been accredited.¹⁶⁰ Once a product stewardship scheme is accredited, anyone involved in the product's life cycle, such as producers, brand owners, importers, retailers and consumers, accepts responsibility for the environmental effects of that product.¹⁶¹ A "cradle to grave" approach is recognisable.¹⁶²

(d) Waste Minimisation Fund and Waste Advisory Board

The purpose of the Waste Minimisation Fund (WMF) is to support waste minimisation projects and to invest in infrastructure as well as educational and promotional activities.¹⁶³ Eligible activities must be new initiatives or at least beyond the current scope of waste minimisation measures.¹⁶⁴ All funded projects have to be approved by the Minister for the Environment.¹⁶⁵ As mentioned above, the WMF is funded by the waste disposal levy.

The Waste Advisory Board is established under pt 7 of the WMA and provides independent advice to the Minister for the Environment upon request.¹⁶⁶ It advises on the accreditation as a priority product in the product stewardship

156 See s 8.

157 Sections 9, 14–15.

158 Ministry for the Environment "Mandatory product stewardship" (5 April 2017) MfE <www.mfe.govt.nz>.

159 See Ministry for the Environment *Priority waste streams for product stewardship intervention: A discussion document* (ME 1152, May 2014); Ministry for the Environment *Priority waste streams for product stewardship intervention: A summary of submissions* (ME 1196, April 2015).

160 See the list at Ministry for the Environment "Accredited voluntary product stewardship schemes" MfE <www.mfe.govt.nz>.

161 Ministry for the Environment "About product stewardship in New Zealand" (5 April 2017) MfE <www.mfe.govt.nz>.

162 Jennifer-Ann Hoeveler "International Approaches to Dealing with Electronic Waste" (2009) 13 NZJEL 117 at 140. See further Peter Stubbs and Sonya Vujnovich "Product stewardship under the Waste Minimisation Act" (2009) 8 BRMB 79.

163 Ministry for the Environment "About the Waste Minimisation Fund" (15 April 2017) MfE <www.mfe.govt.nz>.

164 Ministry for the Environment *Waste Minimisation Fund* (INFO 730, February 2015) MfE <www.mfe.govt.nz> at 2.

165 At 2.

166 Ministry for the Environment "About the Waste Advisory Board" (30 March 2017) MfE <www.mfe.govt.nz>.

scheme, recommends the making of regulations, reviews the effectiveness of the levy, and sets criteria for new funding projects.¹⁶⁷

An assessment of the New Zealand legal waste system — and its German counterpart — will be made in part 3 below.

2.3 German Legal Waste System

The main part of the German analysis will deal with the “Waste Management Act” — the *Kreislaufwirtschaftsgesetz* (KrWG) — its European, international and national embedment as well as the definition of waste, its structure and key provisions and instruments.

2.3.1 *Legal framework*

The German legal waste system also consists of a range of European, international and national legal obligations. After a short overview of the historical background, the European and international legal framework will be outlined. At national level, the focus will be on the KrWG — other less important national legislation will only be mentioned briefly.

(i) Historical background

At national level, the 16 federal states (for example, Bavaria) were originally responsible for waste law due to the local-self-government principle, stated in Grundgesetz für die Bundesrepublik Deutschland (GG), art 28(2).¹⁶⁸ There was no uniform national waste law at the beginning.¹⁶⁹ Waste law was only part of other federal statutes as a secondary aspect until the federal governments were charged with regulating waste disposal-related matters (GG, art 74(1)(24)).¹⁷⁰

Regarding the early times of settlement and the history at international level it can be referred to the correspondent New Zealand background. Waste became more and more problematic with the growing urban population and increasing health problems.¹⁷¹ In 1972 the first Waste Disposal Act¹⁷² at national level entered into force.¹⁷³ It was mainly concerned with the disposal of waste by the

167 Ministry for the Environment, above n 166.

168 Grundgesetz für die Bundesrepublik Deutschland [GG] 1948 (GER). Uwe Andersen “Gemeinden/Kommunale Selbstverwaltung” (2013) BpB <www.bpb.de>.

169 See a contrario Umweltbundesamt “Waste management” (20 January 2014) UBA <www.umweltbundesamt.de>.

170 Umweltbundesamt “Waste regulations” (20 January 2014) UBA <www.umweltbundesamt.de>.

171 Umweltbundesamt, above n 169.

172 Abfallbeseitigungsgesetz [AbfG] 1972 (GER).

173 Umweltbundesamt, above n 169.

public sector.¹⁷⁴ The Act was reviewed in 1986¹⁷⁵ in order to implement the first steps of waste prevention and management.¹⁷⁶ Also at European level, waste was now seen as a trading and asset good rather than useless trash.¹⁷⁷ A more management-oriented view of waste developed. As a consequence, the national waste law was reviewed for a second time in 1994 and was transformed into the Waste Management and Waste Act.¹⁷⁸ Waste prevention was strengthened, waste disposal was more and more privatised, and the new idea of product stewardship with a “cradle-to-grave” approach¹⁷⁹ was introduced.¹⁸⁰ The reorientation towards a waste management law can be seen as a milestone in the historical development.¹⁸¹ Finally, the current main piece of legislation in German waste law, the Waste Management Act (KrWG), entered into force in 2012.

(ii) European and international obligations

At European level, especially the Directive 2008/98/EC on waste¹⁸² — often called Waste Framework Directive¹⁸³ — is of particular importance.¹⁸⁴ It provides a framework for European waste management law and aims to protect human health and the environment.¹⁸⁵ The significance of proper waste management, recovery and recycling is emphasised in order to improve efficient resource use.¹⁸⁶ In the directive, a waste hierarchy in the following order of importance is established: prevention, preparing for reuse, recycling, other recovery such as energy recovery and disposal.¹⁸⁷ In addition, the “polluter pays” principle is confirmed and “extended producer responsibility” is

174 Rechtslexikon “Abfallrecht” (2014) Rechtslexikon.net <www.rechtslexikon.net>.

175 Abfallgesetz [AbfG] 1986 (GER).

176 Federal Ministry for the Environment “Waste Policy” (10 July 2017) BMUB <www.bmub.bund.de>.

177 Case C-2/90 *Commission of the European Communities v Kingdom of Belgium* [1992] I-04431.

178 Kreislaufwirtschafts- und Abfallgesetz [KrW-/AbfG] 1994 (GER).

179 See above part 2.2.1(i).

180 Federal Ministry for the Environment, above n 176.

181 Umweltbundesamt, above n 169.

182 Directive 2008/98/EC on waste and repealing other directives [2008] OJ L 312/3.

183 Umweltbundesamt, above n 169.

184 See in further detail Geert van Calster *EU Waste Law* (2nd ed, Oxford University Press, Oxford, 2015) at 1–78.

185 European Union Law database “EU waste management law” (24 February 2016) EUR-Lex <www.eur-lex.europa.eu>.

186 European Union Law database, above n 185.

187 See in detail Alexander Gillespie *Waste Policy: International Regulation, Comparative and Contextual Perspectives* (Edward Elgar, Cheltenham, 2015) at 74–85.

introduced.¹⁸⁸ National authorities have to adopt waste management plans and waste prevention programmes, and recycling and recovery targets to be achieved by 2020 are introduced for household (50 per cent), construction and demolition waste (70 per cent).¹⁸⁹ Waste is also distinguished from by-products — products that are the result of a production process but not the primary aim of it and that can be used again afterwards.¹⁹⁰ The directive was transposed into German law through the KrWG.¹⁹¹ Several more directives and regulations at European level such as the Regulation 1013/2006 on shipments of waste¹⁹² and the Council Directive 1999/31/EC on the landfill of waste¹⁹³ are outside the scope of this article.

At the international level, Germany and New Zealand's international obligations are comparable.¹⁹⁴ Germany ratified the Basel and Stockholm Conventions in 1995 and 2002.¹⁹⁵ Like New Zealand, Germany is also bound by the OECD Hazardous Waste Decision about hazardous waste trade between OECD countries.¹⁹⁶ Beyond that, there is *inter alia* a regulation concerning the export of non-hazardous waste to non-OECD countries.¹⁹⁷

(iii) National legislation

Besides the Waste Management Act, there are several special Acts and regulations at national level. The most important ones are as follows. The Waste Shipment Act¹⁹⁸ concerns questions of the transfer of waste and refers to the aforementioned European Regulation 1013/2006 on shipments of waste. Both the Batteries Act¹⁹⁹ and the Electrical Devices Act²⁰⁰ concern the putting into circulation and the disposal of batteries and electrical devices. Finally, there is the Landfill Regulation²⁰¹ about landfills and long-term storage.²⁰²

188 European Union Law database, above n 185.

189 European Union Law database, above n 185.

190 European Union Law database, above n 185.

191 Umweltbundesamt, above n 170.

192 Regulation 1013/2006 on shipments of waste [2002] OJ L 190/1.

193 Council Directive 1999/31/EC on the landfill of waste [1999] OJ L 182/1.

194 See above part 2.2.1(ii).

195 Basel Convention "Country Profiles" (2011) BC <www.basel.int>; Stockholm Convention "Status of ratification" (2008) SC <www.chm.pops.int>.

196 Federal Ministry for the Environment "Status of and legislation of the transboundary shipment of waste" (12 August 2015) BMUB <www.bmub.bund.de>.

197 Federal Ministry for the Environment, above n 196.

198 Abfallverbringungsgesetz [AbfVerbrG] 2007 (GER).

199 Batteriegesetz [BattG] 2009 (GER).

200 Elektronik und Elektronikgerätegesetz [ElektroG] 2015 (GER).

201 Deponieverordnung [DepV] 2009 (GER).

202 An overview of all relevant Acts and regulations is given at Bundesumweltministerium "Abfallrecht in Deutschland" (14 July 2017) BMUB <www.bmub.bund.de>.

According to GG, arts 72(1) and 74(1)(24), the federal states' law is less important and contains only provisions about the procedure and responsibilities in the specific federal state. That is why federal waste management Acts are not discussed and the focus is rather on the national Waste Management Act as follows.

2.3.2 Waste Management Act — KrWG

The Waste Management Act (KrWG) is the core piece of waste legislation in Germany. Its purpose is to promote and strengthen the circular economy and waste management in order to use resources efficiently and to protect human beings and the environment (§ 1). The purpose of the Act shows that waste is seen as an economic asset. The KrWG is both an environmental and business-oriented statute.

(i) Definition of waste

The definition of waste is stated in KrWG, § 3(1–4). On the one hand, it expands the definition given in the Waste Framework Directive²⁰³ where waste is defined as “any substance or object that the holder discards or intends or is required to discard” in art 3(1). On the other hand, the German definition adopts the three possible forms of discarding.

According to KrWG, § 3(1–4), waste must meet two requirements. First, there must be a substance or object regardless of its state of aggregation. Secondly, one of the three forms of discarding must be given: the substance is already discarded, there is the intention to discard, or there is an obligation to do so.²⁰⁴ Each form of discarding is interpreted from a different point of view.²⁰⁵ As a consequence, the definition of waste becomes quite difficult and complex.

According to KrWG, § 3(2), if the substance was already discarded is interpreted solely from a subjective point of view and in consideration of the intention of the possessor of waste. Having the intention to discard but not having discarded the substance yet is interpreted from a subjective point of view having regard to an objective opinion with generally accepted standards (§ 3(3) cl 2). By contrast, the obligation to discard is interpreted from a solely objective point of view — the intention of the possessor of waste is irrelevant (§ 3(4)).

In addition, it has to be distinguished between waste and by-products. The latter are stated and defined in KrWG, § 4. According to § 4(1), some requirements must be met in order to be seen as a by-product. Even though this

203 Umweltbundesamt, above n 170.

204 See KrWG, § 3(2–4).

205 See KrWG, § 3(1, 2–4).

provision cannot be dealt with in detail, a by-product can be described briefly as “a substance that is produced in connection with the manufacture of another substance or product, and is thus not the main focus of the manufacturing process”²⁰⁶.

KrWG, § 5 completes the definition of waste by dealing with the end of the classification as waste.²⁰⁷ Only if the requirements of § 5 are met, is the substance no longer seen as waste.

(ii) Waste hierarchy

The waste hierarchy of the KrWG traces back to the European Directive 2008/98/EC on waste as mentioned above. The hierarchy itself was introduced in art 4 of the Directive while the definitions of the different steps are given in art 3.

In the German KrWG, the waste hierarchy is stated in § 6 (1). There are five steps in the following order of importance: prevention, preparation for reuse, recycling, other types of recovery — particularly energy recovery and backfilling — and disposal. According to the definitions in § 3, the individual methods can be described as follows.

Prevention as the first and most important step means all measures that are taken before the substance became waste in order to reduce the amount of waste and its negative effects on human beings and the environment. Unlike the New Zealand hierarchy, *reuse* is still part of the first step and means that products that are not waste or parts of it are used again for the same purpose they have been intended for. The second step is rather *preparation for reuse*. This includes all measures that are taken after the products or parts of it became waste in order to use them for the same purpose they have been intended for. *Recycling*, ranked third, is the reprocessing of waste materials in order to produce new products with the same or a different purpose. By contrast, *recovery* as the fourth step can be described as the extraction of material or energy from waste for further use or processing with a different purpose. It is not compulsory to reach a new material level, though.²⁰⁸ Recovery is the umbrella term for recycling and other types of recovery²⁰⁹ such as energy recovery or backfilling. The last and final step, *disposal*, is defined in a negative way and means every measure that is not recovery.²¹⁰

This hierarchy is one of the core provisions²¹¹ of the KrWG but is not fixed. In accordance with §§ 6(2), 7(2) cl 3 and 7(4), the protection of human health

206 Umweltbundesamt, above n 170.

207 Umweltbundesamt, above n 170.

208 See a contrario KrWG, § 3(23, 35).

209 See a contrario KrWG, §§ 3(23, 25) and 6(1)(4).

210 See generally KrWG, § 3(20–26).

211 Umweltbundesamt, above n 170.

and the environment in light of the sustainable and the precautionary principles as well as economic reasonableness and social and technical effects always have to be considered on a case-by-case basis. KrWG, §§ 7(2) cl 2 and 8 concern the priority of the five steps and possible deviations from the basic hierarchy.

(iii) Instruments and key provisions

The German legal waste management instruments can be divided into three cornerstones: planning, direct behaviour control, and indirect behaviour control.²¹² After an overview of the key provisions and instruments, the responsibility for disposal will be outlined.

(a) *Planning*

The first legal instrument is waste management planning. It is stated in KrWG, §§ 30–32. The federal states are responsible for establishing waste management plans.²¹³ These plans have to include the objectives in accordance with the waste hierarchy as well as the current waste situation and the measures that should be taken.²¹⁴ Expected future developments and aims of regional planning have to be considered.²¹⁵ The mandatory and optional content of those plans is stated in § 30(6–7). KrWG, §§ 31–32 deal with the procedure of waste management planning and public participation.

Besides, there are waste prevention programmes, primarily established by the central government (KrWG, § 30). The federal states are able to become involved, though, or to establish their own ones.²¹⁶ The waste prevention programme aims to prevent the generation of waste and intends to unlink economic growth and the harmful effects on human beings and the environment.²¹⁷

The intention and purpose of both planning instruments is to coordinate and strengthen waste management and public participation.²¹⁸

(b) *Direct behaviour control*

Besides planning, which determines the overarching aims and objectives of waste management, direct behaviour control contains the most important and useful instruments.

212 Martin Kment “Besonderes Umweltrecht” (2015) Universität Augsburg <www.jura.uni-augsburg.de> at 86–92.

213 KrWG, § 30(1).

214 KrWG, § 30(1).

215 KrWG, § 30(2, 5).

216 KrWG, § 33(1).

217 KrWG, § 33(3).

218 Bundesumweltministerium “Eckpunkte des neuen Kreislaufwirtschaftsgesetzes” (7 December 2016) BMUB <www.bmub.bund.de>.

First, there are basic duties, obligations and prohibitions.²¹⁹ KrWG, § 7(1) cl 1 contains the basic duty to prevent the generation of waste in accordance with KrWG, § 13 and therefore in particular § 5(1)(3) of the Federal Emission Control Act (BImSchG).²²⁰ The basic duty for recovery of waste is stated in KrWG, §§ 7(2–4) and 8. Waste recovery has to be carried out in the most secure and harmless way.²²¹ As mentioned already, in these articles, the waste hierarchy is fleshed out and its deviations are described. KrWG, § 14 once again emphasises the importance of recycling in the German waste management system. The requirements for waste recovery are stated in § 10. Finally, KrWG, § 15 contains the basic duty for the disposal of waste. Further details are provided in § 16.

In addition, there is the instrument of product stewardship as stated in KrWG, §§ 23–25. Take-back obligations are provided in § 25 — especially for electronic waste. Requirements for prohibitions, limitations and labels are contained in § 24. All of the provisions are supported by bylaws. This instrument describes responsibilities along the entire life cycle of a product and thus contains incentives for manufacturers.²²² Environmentally sound recovery and disposal should be ensured and encouraged.²²³ Product stewardship is seen as one of the key instruments of the modern waste management and circular economy.²²⁴

Secondly, there is the approval or licensing of waste disposal facilities.²²⁵ The structure and key provisions in brief is that you need a licence for being allowed to operate a waste recovery or disposal facility. While the KrWG contains provisions about the approval of waste disposal sites,²²⁶ the permission of waste recovery sites is solely covered by the BImSchG.²²⁷ Within waste disposal sites, there are different requirements and procedures for landfills and other waste disposal sites. The latter have to meet the requirements of the BImSchG in accordance with KrWG, § 35(1) again. The permission of landfills requires a so-called “plan approval procedure” pursuant to KrWG, § 35(2).

Thirdly, provisions about monitoring, reporting and permission are stated in KrWG, §§ 53, 54 and 47.²²⁸ While there are notification requirements for

219 Kment, above n 212, at 87.

220 Bundes-Immissionsschutzgesetz [BImSchG] 1974 (GER). See also Kment, above n 212, at 86.

221 See KrWG, § 7(2, 3).

222 Umweltbundesamt, above n 169.

223 Umweltbundesamt, above n 169.

224 Federal Ministry for the Environment “Product responsibility — General Information” (4 April 2017) BMUB <www.bmub.bund.de>.

225 Kment, above n 212, at 88.

226 See KrWG, §§ 28(1) cl 1, 34–44.

227 See KrWG, § 28(1) cl 2 in conjunction with BImSchG, § 4(1).

228 Kment, above n 212, at 89.

commercial activities with non-hazardous waste, there is an obligation to seek permission for doing the same with hazardous waste.²²⁹ A general monitoring obligation of the competent authority is stated in § 47.

(c) Indirect behaviour control

Finally, there is indirect behaviour control. Its instruments primarily deal with waste prevention²³⁰ but are less important and influential compared to the other cornerstones. The most important indirect instrument is the introduction of waste prevention programmes.²³¹ These have already been discussed above in connection with waste management planning. In addition, there is some sort of a waste levy and a charge for municipal waste.²³² However, only rough control and management options like the opportunity for households to choose between smaller and cheaper or larger but more expansive bins are available.

(d) Responsibility for waste disposal

In Germany, a dual disposal system applies.²³³ In general and in application of the “polluter pays” principle, waste owners and possessors are responsible for recovery and disposal on their own (KrWG, §§ 7(2) cl 1, 15(1) cl 1). By this, waste prevention can be pushed — the less waste you generate, the less waste is to be disposed of at your own expense. Besides and in accordance with the German public law principle of “services in general interest”,²³⁴ there is the obligation to hand over waste — especially municipal waste — to a public disposal provider under certain circumstances.²³⁵

3. EVALUATION OF BOTH SYSTEMS

After having examined both legal waste systems, a conclusion should be drawn, as to which of them meets the upcoming waste challenges in a more promising way. The main differences and commonalities will be reviewed in an overall summary and final assessment.

229 See KrWG, §§ 53, 54.

230 Kment, above n 212, at 92.

231 See KrWG, § 33.

232 Kment, above n 212, at 92.

233 Bundesumweltministerium, above n 218.

234 Bundesumweltministerium, above n 218.

235 See KrWG, §§ 17, 20(1) cl 1.

3.1 Similarities

The waste situations in New Zealand and Germany show that both countries are facing great waste challenges. The amount of waste increases even though waste prevention and waste management systems are established in order to address the problems of waste. The backgrounds and origins might be different, but for both countries, dealing with huge amounts of waste is one of the big challenges of the 21st century.

International obligations that specify the legal direction are almost the same for both countries. In addition, the German regime has to comply with European obligations that were successfully transposed into national legislation. Both legal waste systems follow a hierarchical waste concept. The five steps on both sides are quite similar. There are only minor differences between the different steps and definitions: “reuse” is, for example, the second step in New Zealand while it is still part of waste prevention and therefore the first step in Germany.

The definitions of waste are not identical but both legal terms require some sort of discarding. The German definition, however, is more precise and includes three forms of discarding with different points of view — but is also more complex. Interesting is the fact that no definition uses the term of “abandonment” that was used by the Court of Appeal in the *Carter Holt Harvey Ltd v North Shore City Council* case.

In both regimes, the concept of product stewardship can be identified. In Germany, many bylaws support and flesh out this instrument. In New Zealand, by contrast, only the voluntary scheme is working today although priority products could have been accredited for the mandatory scheme. The lack of implementation of given instruments is an important point of criticism of the New Zealand waste law and policy.

Finally, both legal systems emphasise the importance of waste prevention. But the reality in everyday business is different — the focus is rather on recycling.

3.2 Differences

While the WMA does not provide general rules of responsibility but has to refer to s 17 of the RMA, the “polluter pays” principle can be identified in the KrWG. However, there is also the obligation to hand over municipal waste to public disposal providers under certain circumstances in Germany. Enforcement provisions are not covered by the WMA. It has to be referred to the RMA again. By contrast, the KrWG as a comprehensive waste management Act provides basic duties and enforcement provisions.²³⁶

236 In particular KrWG, § 62.

The main difference between both systems is the responsibility of territorial authorities. In New Zealand, local government plays the most important role in the legal waste system. Even the WMA — the first waste legislation with provisions at national level — adhered to the significant role of territorial authorities. The federal system in Germany might indicate the same, but in fact, the role of the federal states is small compared to the KrWG at national level.

3.3 Conclusion

Overall, the German legal regime can be described as a sophisticated, modern and comprehensive waste management system. The structure is complex due to international and European obligations as well as many special Acts, bylaws and waste Acts of the federal states. The KrWG, however, is able to coordinate all these different sources of law and therefore plays an overarching role in the German waste management law. Nonetheless, the stressed importance of waste prevention does not exist in reality. In everyday business, recycling and particularly the recycling industry play the most important role in the so-called world-leading recycling nation. Even more waste is generated every year and Germany is European champion in packaging waste. Waste is seen as an economic asset and industrial sector rather than an environmental and health problem.

The New Zealand counterpart is less comprehensive. Even though the WMA was a big step within the national waste management system,²³⁷ the law still has to be developed and to become more coherent. The high fragmentation of the different sources of law, the lack of a comprehensive overarching waste Act as well as the dominant role of territorial authorities and the still existing lack of information prevent a uniform New Zealand legal waste system.²³⁸ This fragmentation and existing waste disposal problems threaten the “clean and green” image of New Zealand.

In conclusion, it seems that Germany meets the upcoming waste challenges in a more promising way than New Zealand. However, there is a big problem for both countries with their recycling-oriented waste industries: the recycling technology is far behind the developments of the packaging technology.²³⁹ The sustainable approach of both countries is jeopardised to become an empty promise if the big waste challenge is not taken seriously.²⁴⁰

237 Coming to the same conclusion, Wagener, above n 50, at 339.

238 See likewise the criticism at 339–340.

239 Eckert, above n 6.

240 See also Stanhope, above n 28, at 171 on the sustainability principle and its challenges.

4. CURRENT MOVEMENTS AND POLITICAL OUTLOOK

In the final step, current political and social movements regarding waste in New Zealand will be outlined and a brief outlook on the promised policies of the New Zealand Government elected in 2017 will conclude the legal analysis.

4.1 Current Political and Social Movements

There are a number of movements in politics and society going on at the moment in New Zealand as mentioned in the following.

4.1.1 Ban of plastic bags in supermarkets in New Zealand 2018

Today, plastic bags are everywhere in New Zealand — but in particular when you go to the supermarket. By the end of 2018, though, plastic bags in supermarkets could belong to the past. As a result of customer surveys, social pressure and the big competition going on between the two supermarket giants, both Countdown and New World announced that they were going to ban their plastic bags by the end of the year.²⁴¹

The debate about banning or charging for plastic bags in supermarkets was going on for years but the recent Minister for the Environment did not want to adopt enforcement instruments or national provisions even though there was a clear public will and 89 per cent of councils were in favour of it.²⁴² He rather preferred a voluntary charge system and a levy instead of a ban.²⁴³ With both supermarket chains banning plastic bags by the end of 2018, though, a first big step to reduce plastic waste has finally been taken.

In Germany, plastic bags reduced heavily — by up to 70 per cent — since a voluntary agreement between the retail sector and the Federal Ministry for the Environment was established in 2016. The private sector preferred the voluntary deal to a mandatory scheme due to the fact that all the big players are in. The price for the plastic bags, however, is determined by the individual companies themselves. The reason for the charge on plastic bags is a European directive that requires the reduction of plastic bags by 2019 to 90 bags and by 2025 to 40 bags per year per person.²⁴⁴

241 Rachel Clayton “New World matches Countdown to go plastic free by 2018” (10 October 2017) Stuff.co.nz <www.stuff.co.nz>.

242 Local Government New Zealand “Huge support for levy on single use plastic bags” (17 July 2017) LGNZ <www.lgnz.co.nz>.

243 Clayton, above n 241.

244 Umweltbundesamt “Ende der kostenlosen Plastiktüten — Fragen und Antworten” (2 June 2016) UBA <www.umweltbundesamt.de>.

Just recently, the European Parliament voted for a total ban on single-use plastics like straws, plastic cutlery, plastic plates and cotton buds and herewith backed the proposed single-use plastics directive of the European Commission of May this year.²⁴⁵ Under the proposed directive, the ban should enter into force by 2021 and 90 per cent of plastic bottles should be recycled by 2025.²⁴⁶

4.1.2 Third food waste bin in Auckland 2018

Starting in 2018, a third household food waste bin should be introduced in urban areas of Auckland by a “pay-as-you-throw” basis. The project was planned to begin in Papakura in early 2018 and should be region-wide between 2020 and 2022. Furthermore, remaining waste bags are to be changed towards bins in Auckland.²⁴⁷

4.1.3 Ban of microbeads in New Zealand 2018

Decided by the former National Government, new regulations banning microbeads in New Zealand have come into effect as of 7 June 2018. Microbeads are non-biodegradable and harm both human life and the marine environment. Implemented under WMA, s 23, the manufacture and sale of products containing plastic microbeads for the purpose of cleaning, exfoliation, abrasive cleaning or visual appearance that are designed to be washed down the drain are prohibited.²⁴⁸

4.1.4 Suggestions for end-of-life tyres

Annually, about four million used car tyres besides one million used truck and other vehicle tyres are generated only in New Zealand with most of them disposed of to landfills. The outdoor storage of tyres is a big problem because it poses risks to the environment, local communities and human health.

245 European Commission *Proposal for a directive of the European parliament and the council on the reduction of the impact of certain plastic products on the environment* COM (2018) 340 final - 2018/1072 (COD) (28 May 2018).

246 Arthur Neslen “European parliament approves sweeping ban on single-use plastics” (24 October 2018) *The Guardian* (online ed, London, 25 October 2018) <www.theguardian.com>.

247 See Auckland Council “Food waste collection to begin in 2018” (17 May 2017) AC <www.ourauckland.aucklandcouncil.govt.nz>.

248 See further Ministry for the Environment “Plastic microbeads ban” (7 June 2018) MfE <www.mfe.govt.nz>; Ministry for the Environment “Banning the sale and manufacture of certain products containing plastic microbeads” (17 August 2017) MfE <www.mfe.govt.nz>.

Currently, there are no national rules to manage the problem. At the moment, there is solely the framework of the RMA but the responsibility is up to local government. The most promising proposal is the implementation of a NES for the outdoor storage of tyres.²⁴⁹ Local authorities would be able to manage the risks and harmful effects of outdoor tyre stores that are more than 200 cubic metres by resource consent. However, a number of questions and issues about the proposal were also raised like conflicting views on the threshold for the resource consent. Furthermore, it was supported to widen the scope of the suggested NES in order to include also other requirements such as mandatory documentation for tyre transactions. In addition, tyre recycling projects and growing markets for recycled tyre products are funded by the WMF.

The NES is planned to be complete mid-2019. In the meantime, the work on the NES is going to be continued in collaboration with council waste management experts to ensure that the proposal is fit-for-purpose.²⁵⁰

4.2 Political Outlook

After the general election in September 2017, New Zealand's Government changed to a new Labour–New Zealand First coalition with a confidence and supply agreement with the Green Party.²⁵¹ A brief overview of the promised environmental policies concerning waste should be given in the light of recent events. Finally, the political outcomes and practical implementations of the coalition between Labour and New Zealand First will be examined with regard to waste policies after one year of the legislative period.

4.2.1 Labour

Labour proposes to expand recycling and composting services in all regions. Plastic waste should be reduced substantially and monitoring and reporting obligations for hazardous waste management should be introduced. Finally, product stewardship schemes are intended to be widely deployed in order to strengthen the application of the “cradle to grave” approach.²⁵²

249 Ministry for the Environment, above n 85.

250 See further Ministry for the Environment “Proposed National Environmental Standards for the Outdoor Storage of Tyres” (4 July 2018) MfE <www.mfe.govt.nz>.

251 Breanna Barraclough “NZ’s new Government: NZ First chooses Labour” (19 October 2017) Newshub <www.newshub.co.nz>.

252 See further Andrew Kirton “Protecting our environment” (2017) Labour Party <www.labour.org.nz>.

4.2.2 New Zealand First

There are only two targets of New Zealand First regarding waste in their 2017 policy. First, the development of alternatives to landfill disposal should be advanced. Secondly, product stewardship concerning the collection, management and recovery of toxic but valuable electronic waste is aimed to be improved.²⁵³

4.2.3 The Green Party

The Greens are focusing on plastic waste in particular and want to phase out single-use plastic bags by the end of 2020 with a levy of 20 cents in the meanwhile. With the revenue, community-led environmental clean-ups and research and development into alternatives to plastic should be funded. In addition, plastic packaging and plastic products should be phased out, too, by declaring plastic packaging a priority product under the mandatory product stewardship scheme. Plastic cutlery, plates and cups are aimed to be reduced as well. The overarching target is a “Zero waste New Zealand” with no waste going to landfill by 2050.²⁵⁴

4.2.4 Waste policy of the New Zealand Government

One year after the general election in New Zealand, it is time to examine the waste policy of the Labour–New Zealand First government. After months of discussion,²⁵⁵ Prime Minister Jacinda Ardern and Associate Minister Eugenie Sage announced in August 2018 that single-use plastic bags were going to be phased out over the next year.²⁵⁶ Ms Sage also announced in May that a facility to recycle tyres was getting off the ground with support and funding of the WMF.²⁵⁷

It is notable that the Government pushes forward the debate about the proposed NES for end-of-life tyres. The Government is willing to tackle currently unsolved problems harming the environment and public health and

253 See further A Martin “Policies: Environment and Conversation” (2017) New Zealand First <www.nzfirst.org.nz>.

254 See further James Shaw “Turning trash into cash” (2017) Green Party <www.greens.org.nz>.

255 Ged Cann “The new Government doesn’t agree on plastic bag legislation” (4 December 2017) Stuff.co.nz <www.stuff.co.nz>.

256 Ministry for the Environment “Single-use plastic bags to be phased out” (press release, 10 August 2018).

257 Eugenie Sage “Funds to tackle waste problems” (18 May 2018) Beehive <www.beehive.govt.nz>.

tries to keep its coalition promises even though private movements are not less effective. On the example of plastic bags, private competition and social pressure led to a factual ban of plastic bags from both big supermarket chains even before an appropriate law has been adopted.

5. CONCLUSION

Waste problems are considerable — but so are the opportunities. The challenge in the 21st century is now to solve these problems. As pronounced by the former President of the United States, Jimmy Carter, in the 1970s, the growing mountain of waste represents a serious economic and public health problem. In particular, plastic waste pollutes the oceans and harms the marine environment. There is no doubt that the view of waste law has changed and a lot of things have already been done. At international, European and national level, the area of waste management law has developed and the purpose of sustainable waste management in conjunction with the reduction of its harmful effects on human beings and the environment is emphasised. The analyses of the New Zealand and German legal waste systems show that both regimes follow a sustainable approach. However, the reality in everyday life and business as well as the current waste situations in both countries speaks a different language. The economic value of waste is recognised and the industrial sector — the recycling industry in particular — benefits from even larger amounts of waste. In addition, the modern lifestyle, consumer behaviour and high health and hygiene standards result in more and more packaging and plastic waste.

By contrast, ironically an African state shows how plastic waste can be reduced significantly. In Rwanda, plastics have been prohibited generally since 2008 and Kigali became the cleanest capital in the whole of Africa. Plastic bags are only available on the dark market at high cost.²⁵⁸

In the end, the problems discussed can be solved if the principle of sustainable waste management and the emphasis on waste prevention are no longer empty promises but actually put into practice. The greatest obstacle to less waste generation remains the highly influential waste industry sector and political inaction in some areas.