

Organic Agriculture in Australia: Attaining the Global Majority (51%)

John Paull*

Environment, Resources & Sustainability, University of Tasmania, Hobart, Australia

Abstract

The latest statistics reveal that Australia now has more certified organic agriculture hectares than the rest of the world put together. Organics is a major success story for Australia and the achievement of global majority (51%) is an important organics milestone. Organic agriculture is reported from 181 countries. Australia reported 35,645,038 certified organic hectares and the world total is 69,845,243 hectares. Australia has been the world leader in organics, based on certified organic hectares, since global statistics of organics were first collated and published in 2000. In the two decades since then, global organics has grown at 12% per annum (pa), year on year, while Australian organics has grown at 16% pa. This growth in Australia has ramped up to 22% for the past five years. In Australia this has been achieved without government support and without institutional support. Australia is at no risk of being ‘knocked off the perch’ anytime soon. In second position is Argentina with 3,385,827 hectares, less than 10% of Australia’s tally. Third is China with 3,023,000 hectares, then comes Spain with 2,082,173 ha, then USA with 2,031,318 ha. Of eight states and territories in Australia, all report some organics. The states in the lead are South Australia and Queensland. Of the country’s agricultural land, 8.8% is certified organic, so there is still plenty of room for improvement. Organic agriculture produces premium products that attract a price premium in the market, whether at home or abroad. At the present rate of growth Australia can be expected to shortly join the ‘10% Club’, along with the leaders Liechtenstein (37.9%), Samoa (37.6%), Austria (24.0%), Estonia (20.5%), and ten others. The market for Australian organic produce is mostly driven by the world’s appetite for clean and nutritious food, ultimately that means by discerning consumers with the wherewithal to pay the organic premium. Meanwhile, the world’s consumers are becoming more informed, more discerning, more health conscious, and more wealthy. No one would eat glyphosated food if they had a choice, which is to say, an informed choice. The prospects for global and Australian organics are good.

Keywords

Organic Farming, Organic Food, Statistics, Clean and Green, Growth, Prospects, South Australia, Queensland

Received: March 31, 2019 / Accepted: May 22, 2019 / Published online: June 20, 2019

@ 2019 The Authors. Published by American Institute of Science. This Open Access article is under the CC BY license.

<http://creativecommons.org/licenses/by/4.0/>

1. Introduction

Australia has more certified agricultural hectares than the rest of the countries of the world put together [statistics: 1]. It is an achievement that has been a long time in the making. Global statistics of organics have been reported

since the year 2000 [2], and, each year Australia has been in the lead position, based on hectares [3] (Figure 1). There are other measures of organics leadership and these have been explored in, for example, the Organics Olympiad 2016 [4].

* Corresponding author
E-mail address: j.paull@utas.edu.au

World Map of Organic Agriculture (hectares)

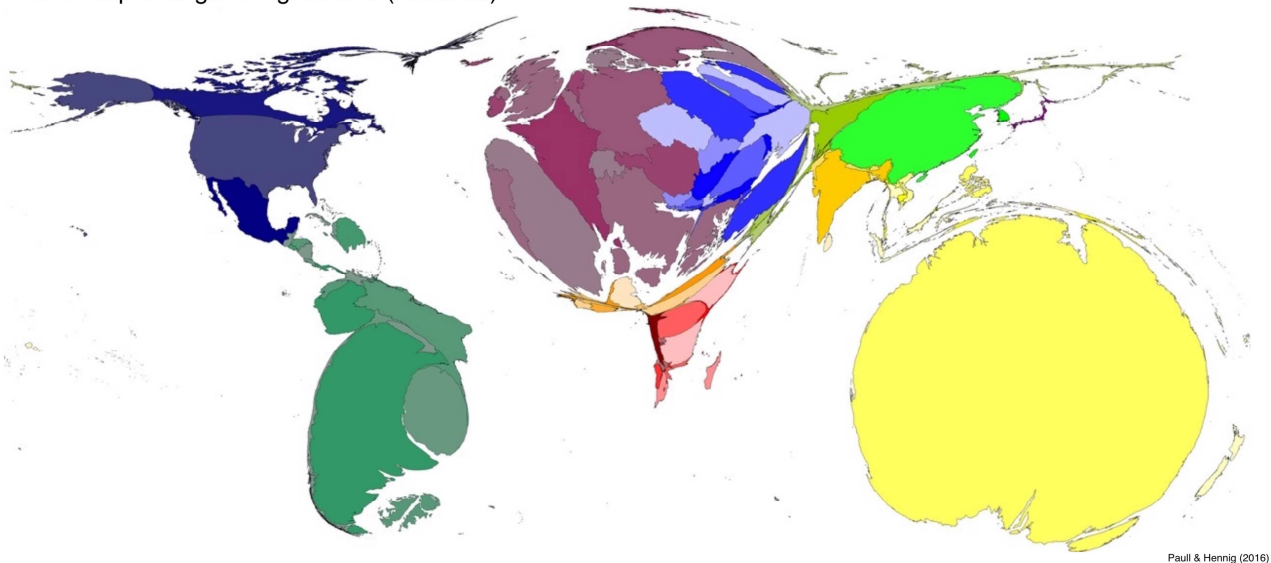


Figure 1. Australia dominates the world map (cartogram) of organic agriculture: from the *Atlas of Organics* [source: 3].

Organic agriculture in Australia has been an enterprise ten decades in the making. The Italian artist and Anthroposophist, Ernesto Genoni, spent a year in Dornach, Switzerland, with Rudolf Steiner in 1924. He migrated to Australia in 1926, and he joined Rudolf Steiner's Experimental Circle of Anthroposophic Farmers and Gardeners in 1928 (which Rudolf Steiner had founded at Koberwitz in 1924) [5, 6]. Ernesto Genoni brought with him an evangelistic fervor for Rudolf Steiner's Anthroposophy and biodynamics, and others followed his lead and joined the Experimental Circle and/or the Anthroposophy group that he founded [7]. The practices and the name, 'biodynamic farming', grew out of the international work of the Experimental Circle [8].

By 1940, a biodynamic farmer in England, Lord Northbourne, had extracted some of the mysticism out of biodynamics, and cast the developments in farming as a contest of 'organic versus chemical farming' [9]. Northbourne's ideas for 'organic farming' were taken up internationally, notably with the publication of the periodical *Organic Farming and Gardening* by Jerome Rodale in USA in 1942 [10], and by the Australian Organic Farming and Gardening Society (AOFGS) in Sydney in 1944 [11]. The AOFGS was the world's first organics advocacy group. The AOFGS published the periodical *Organic Farming Digest* beginning in 1946 (war restrictions on paper precluded publication during the war years. Analysis of contemporary newspapers reveals that, in those early years of organic farming, the AOFGS effectively promoted the ideas of organic farming to the nation [12]. The development of organic certification in Australia in the second half of the 1980s set the stage for

formalising, monetising, and developing the organics sector as a measurable phenomenon.

It is a surprising result that, of 181 countries reporting statistics for organic agriculture, a single country can account for over half of the world's tally of certified organic hectares. This paper looks at that result.

2. Methods

The longitudinal data of Australia and the world is from the annual reports of global organics agriculture data, which began with the first, *Organic Agriculture World-Wide: Statistics and Perspectives* which was published by Germany's Stiftung Ökologie & Landbau (SÖL) [2] and most recently as *The World of Organic Agriculture: Statistics and Emerging Trends*, published by the Research Institute of Organic Agriculture (FiBL) in Frick Germany & IFOAM-Organics International, in Bonn [1]. The data for the distribution of organic land by state and territory is from the latest *Australian Organic Market Report* [13]. The global organics map of the world is from the *Atlas of Organics* [3] and the Australian map of organics is from *Maps of Organic Agriculture in Australia* [14].

3. Results and Discussion

The longitudinal view of Australia's organic hectares is presented in Figure 2. This reveals steady growth for organics from 2000 to 2003, then a decade of stalled growth from 2003 to 2014, and then 'the great leap forward' of the past five years (2014 to 2019) (based on the year reported).

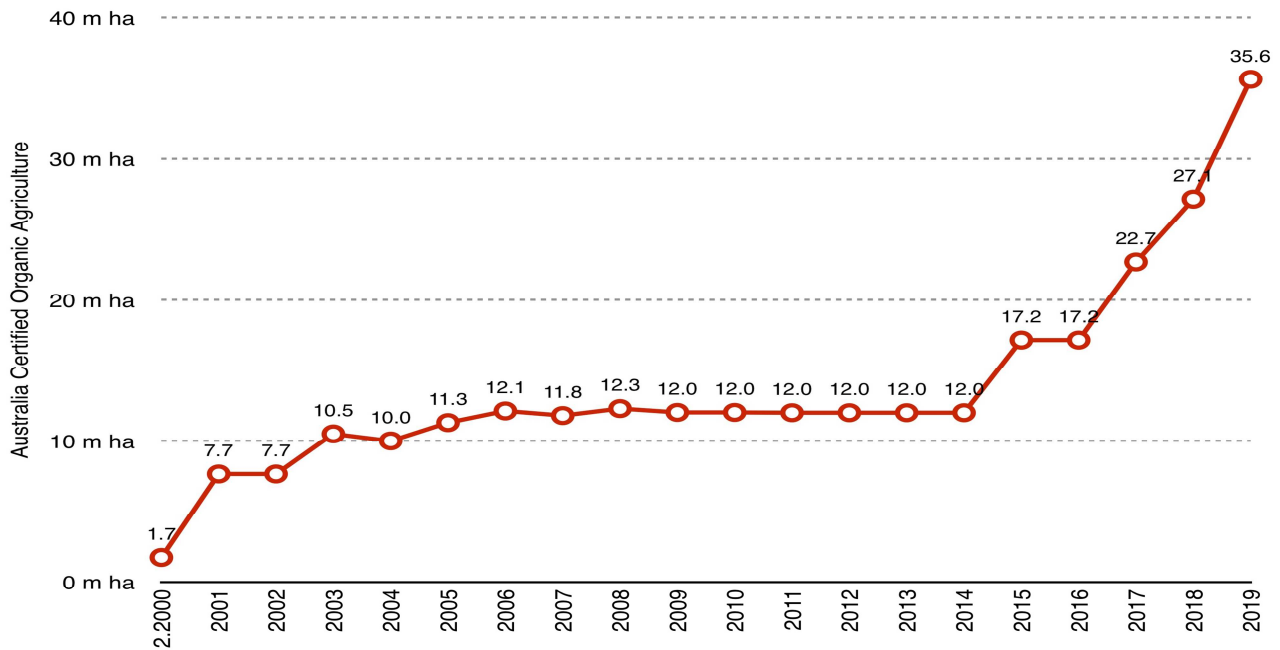


Figure 2. Australia's organic agriculture has been growing at 22% per annum (compounding) for the past five years (year reported) (author's graph; data sources: Willer & Yussefi, 2000 [2] to Willer & Lernoud, 2019 [1]).

Figure 3 juxtaposes the longitudinal growth of world organic agriculture with the growth of Australia's organic agriculture. It shows that during Australia's flat-line period, global organics continued to grow. Then from 2014 much of the global growth can be attributed to Australia's growth as the two graphs are in lock-step (from 2011).

From the beginning of the global collation of organics data,

Australia has had a prominent role, accounting for 48% of global organic certified hectares already in the figures of 2001 (Figure 4). As global organics grows, then Australia's share retreats to a low of 32% in the years 2011 to 2014. From that low point of 32%, Australia's percentage of global organics rises until it reaches the majority figure of 51% reported in 2019.

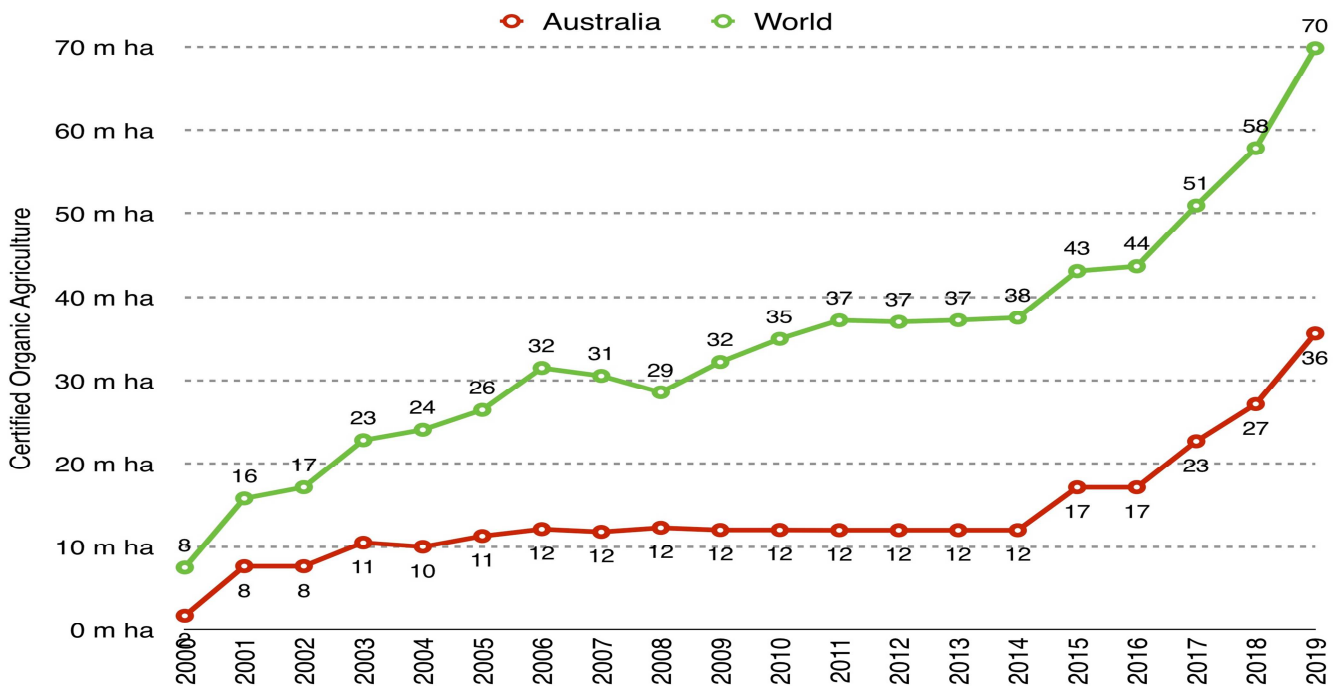


Figure 3. Organic agriculture hectares, Australia versus the world (year reported) (author's graph; data sources: Willer & Yussefi, 2000 [2] to Willer & Lernoud, 2019 [1]).

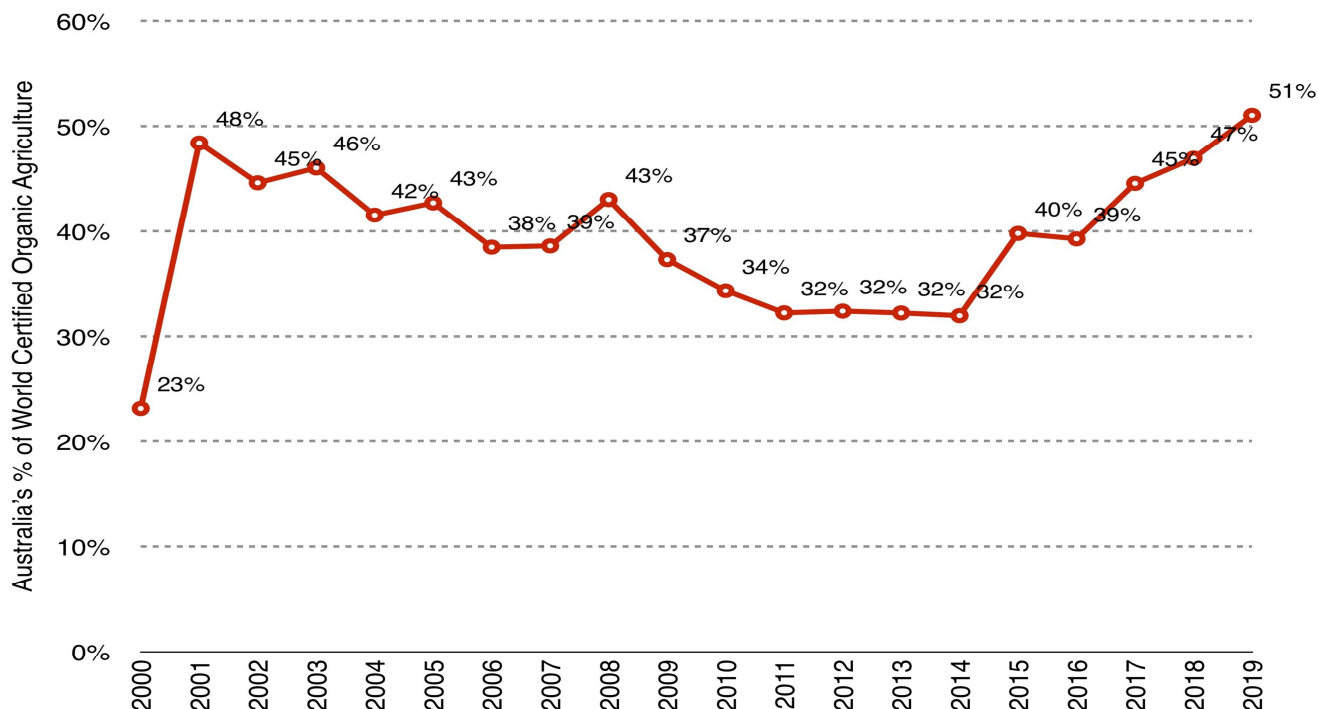


Figure 4. Australia's percentage of global organic agriculture hectares organic agriculture (year reported) (author's graph; data sources: Willer & Yussefi, 2000 [2] to Willer & Lernoud, 2019 [1]).

The distribution of Australia's certified organic land, by state and territory, is shown in Figure 5. The figure is a cartogram, a density-equalizing map of the organics data. The figure reveals South Australia as leading the nation, followed by Queensland. On this measure (of certified organic hectares), Victoria, and Western Australia are underperforming, while Tasmania is just a skeletal presence. So, there are ongoing opportunities for growth, and room for improvement, given that 'only' 8.8% of Australia's agricultural land is certified organic. The comparable figure for global agricultural land is 1.4% organic.



Figure 5. South Australia (red) and Queensland (maroon) dominate the cartogram map of Australia's certified organic land disaggregated by state and territory [source: 3].

4. Conclusions

Australia's organics experience is a success story. For every enterprise there are always the 'yeah but' critics. Yes, Australia's 'great leap forward' in organics is a result mostly of the conversion of large beef producing properties to certified organic status. And that is mostly due to the growing appetite for Australian organic beef in the export markets of USA, Asia and the Middle East. The conversion to organic is a win for multiple parties. The producer achieves a price premium, the customer gets premium organic beef, the environment is not burdened with toxic chemicals, and neither are the staff, nor the animals.

The development and growth of organics in Australia has always been driven by two factors, ideology and the market. Australian organics has received scant support from government and institutions, often being ignored and sometimes derogated. It has always been thus in Australia, and this was the common experience of the pioneers of organics in Australia who sought to engage government or institutions. In Tasmania, Henry Shoobridge in the 1940s could not recruit the Tasmanian Department of Agriculture to give any support to his vision of organics [15]. Colonel Harold White in NSW reported only negative feedback from the leading government research entity, the CSIRO (then CSIR) [16]. The growth of organics in Australia has been achieved despite the lack of government and institutional support.

The world market for good, safe, nutritious, premium food continues to grow, and certified organic is the 'gold standard' for good, safe, nutritious, premium food. There is global consumer demand for organic food [17]. There is zero consumer demand for genetically modified (GM) food and glyphosated food. Such food is sold by keeping consumers in the dark. A large label 'GM food' or 'Produced with the following pesticides ...' would be the mark of death for a food product in a supermarket. Such products are sold where they are not labeled, and the consumer is thereby unable to make an informed choice. An organic diet reduces exposure to pesticides [18]. Less synthetic pesticides and fertilizers is better for the environment and biodiversity [19]. Organic agriculture fosters environmental protection and sustainable development.

The prospects for organic agriculture are bright. Australia has 8.8% of its agricultural land as certified organic. So, there is plenty of room for growth of the sector, and the 10% organic 'club' is in sight for Australia. The state of Sikkim in India has reached 100% organic for its agricultural sector so it has raised the benchmark for what can be achieved [20]. Other states in India are seeking to replicate Sikkim's achievement [21]. China's organic sector is showing good growth and the market there is influencing organics growth as far away as Tasmania, where Chinese certifiers have very recently certified three Chinese-owned organic dairy farms [22]. In Russia, Vladimir Putin has declared the intention for Russia to be a giant in the world of organic food production [23].

Australia is at no risk of losing its lead position in the organic hectares stakes, and that is just because it is so far ahead of its nearest 'rival' (Australia has 35,645,038 hectares compared to the number two place getter, Argentina, which has 3,385,827 hectares, less than ten percent of Australia's tally). However, for Australia to maintain its latest 'accolade' of having the majority of global organics, Australia will need to continue to grow its organics sector at least as fast as the rest of the world. That looks achievable.

References

- [1] Willer, H. and J. Lernoud, eds. *The World of Organic Agriculture: Statistics and Emerging Trends 2019*. 2019, Switzerland: Research Institute of Organic Agriculture (FiBL) & Bonn: IFOAM-Organics International: Frick.
- [2] Willer, H. and M. Yussefi, eds. *Organic Agriculture World-Wide: Statistics and Perspectives*. 2000, Stiftung Ökologie & Landbau (SÖL): Bad Dürkheim, Germany.
- [3] Paull, J. and B. Hennig, Atlas of Organics: Four maps of the world of organic agriculture. *Journal of Organics*, 2016. 3 (1): p. 25-32.
- [4] Paull, J., Organics olympiad 2016: Global indices of leadership in organic agriculture. *Journal of Social and Development Sciences*, 2016. 7 (2): p. 79-87.
- [5] Steiner, R., *Agriculture Course*. "Printed for private circulation only"; 1929, first English language edition; George Kaufmann Trans ed. 1924, Dornach, Switzerland: Goetheanum.
- [6] Paull, J., Ernesto Genoni: Australia's pioneer of biodynamic agriculture. *Journal of Organics*, 2014. 1 (1): p. 57-81.
- [7] Paull, J., *A history of the organic agriculture movement in Australia*, in *Organics in the Global Food Chain*, B. Mascitelli and A. Lobo, Editors. 2013, Connor Court Publishing: Ballarat. p. 37-60.
- [8] Paull, J., The secrets of Koberwitz: The diffusion of Rudolf Steiner's Agriculture Course and the founding of Biodynamic Agriculture. *Journal of Social Research & Policy*, 2011. 2 (1): p. 19-29.
- [9] Northbourne, Lord, *Look to the Land*. 1940, London: Dent.
- [10] Rodale, J. I., ed. *Organic Farming and Gardening*. 1942, Rodale Press, 1 (1): 1-16: Emmaus, Pennsylvania.
- [11] Paull, J., Lord Northbourne, the man who invented organic farming, a biography. *Journal of Organic Systems*, 2014. 9 (1): p. 31-53.
- [12] Paull, J., Organic farming: The arrival of the dissident agriculture meme in Australia. *Journal of Organics*, 2015. 2 (1): p. 49-64.
- [13] Christie, R., ed. *Australian Organic Market Report 2018*. 2018, Australian Organic Ltd: Nundah, Qld.
- [14] Paull, J. and B. Hennig, Maps of Organic Agriculture in Australia. *Journal of Organics*, 2018. 5 (1): p. 29-39.
- [15] Paull, J., The Living Soil Association: Pioneering organic farming and innovating social inclusion. *Journal of Organic Systems*, 2009. 4 (1): p. 15-33.
- [16] White, H. and C. S. Hicks, *Life from the Soil*. 1953, Melbourne: Longmans Green & Co.
- [17] GfK, Decision Factors on What to Eat or Drink: Global GfK Survey (October 2017). 2017, London: GfK (Growth from Knowledge).
- [18] Hyland, C., et al., Organic diet intervention significantly reduces urinary pesticide levels in U.S. children and adults. *Environmental Research*, 2019. 171: p. 568-575.
- [19] Sánchez-Bayo, F. and K. A. G. Wyckhuys, Worldwide decline of the entomofauna: A review of its drivers. *Biological Conservation*, 2019. 232: p. 8-27.
- [20] Chamling, P., *Sikkim Organic Mission 2015*. 2010, Gangtok, India: Food Security & Agriculture Development Department, Government of Sikkim.
- [21] Paull, J., Four new strategies to grow the organic agriculture sector. *Agrofor International Journal*, 2017. 2 (3): p. 61-70.
- [22] Baker-Dowdell, J., VAN Dairy to export organic milk to China. *The Australian Dairy Farmer*, 2018. 9 April.
- [23] RT, Putin vows to make Russia major supplier of organic food to Asia-Pacific Region. 2017, 11 November. Moscow: rt.com.