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ASIA PACIFIC



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NPK markets in Southeast Asia, Japan, and South Korea

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Agenda

- Global overview
- Southeast Asia
- Focus on Indonesia
- Japan and South Korea

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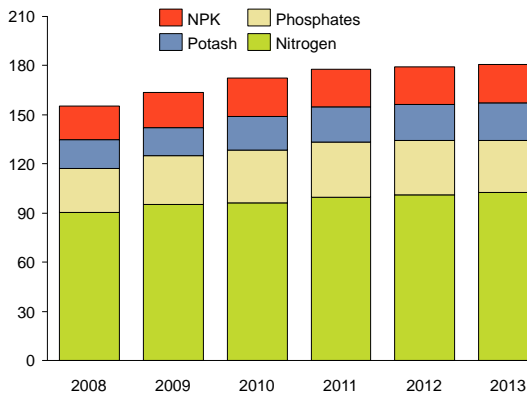
Global overview

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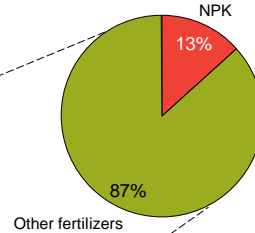
Global NPK compound demand exceeded 23 million tonnes in 2013, and NPK compounds accounted for 13% of global fertilizer demand

World fertilizer demand, 2008-2013

Million nutrient tonnes



World fertilizer demand (%), 2013



Note: NPK refers to fertilizer compounds containing N, P and K. This category does not include NP, NK or PK compounds

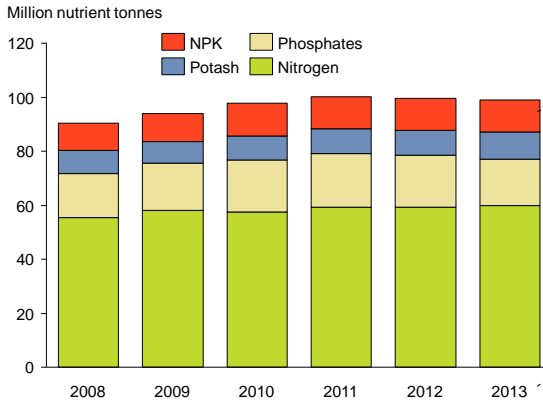
Source: IFA, Integer

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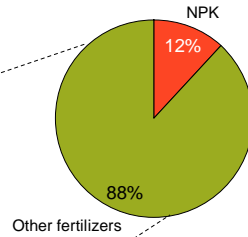
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Asia* accounts for more than half of the global NPK demand

Asian fertilizer demand, 2008-2013



Asian fertilizer demand (%), 2013



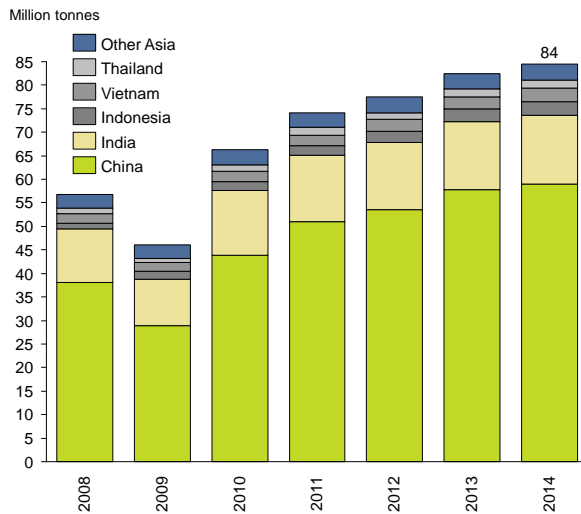
Note: NPK refers to fertilizer compounds containing N, P and K. This category does not include NP, NK or PK compounds
 *Asia in this chart includes China, India, Pakistan Japan, South Korea, Taiwan, all the ASEAN countries

Source: IFA, Integer

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Asia NPK compound market volume ranking



Asia volume ranking, 2014

- 1 China
- 2 India
- 3 Indonesia
- 4 Vietnam
- 5 Thailand
- 6 Malaysia
- 7 Japan
- 8 South Korea
- 9 Philippines
- 10 Australia

Source: Integer

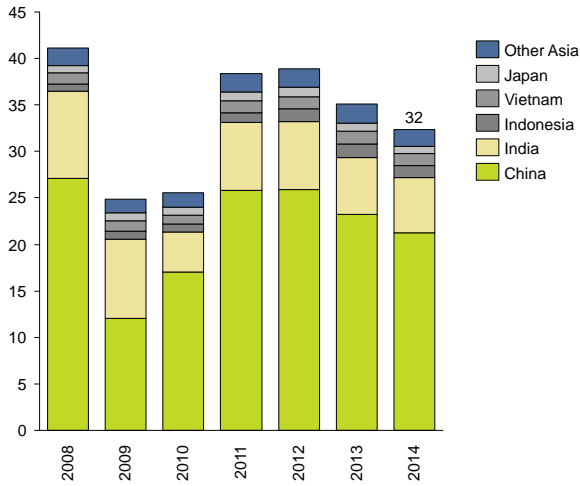
6

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Asia NPK compound market value

Billion US\$



Asia value ranking, 2014

- 1 China
- 2 India
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- 4 Vietnam
- 5 Japan
- 6 Thailand
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- 8 South Korea
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- 10 Australia

Source: Integer

7

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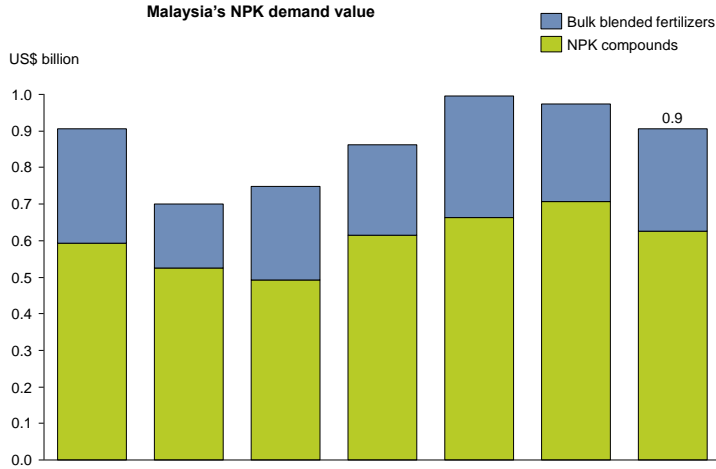
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Southeast Asia

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Malaysia's NPK market is worth almost \$1 billion, and is mostly driven by demand from plantations



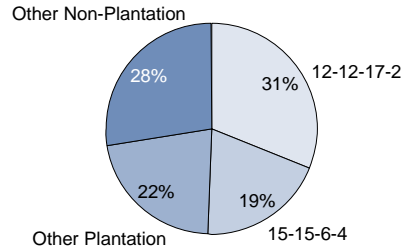
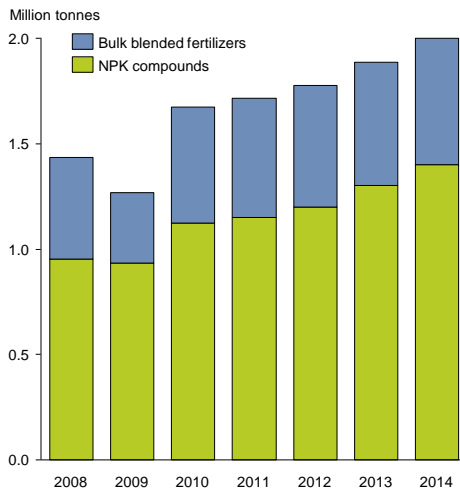
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9

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Volume of Malaysian demand by product



Source: Integer

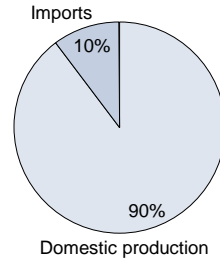
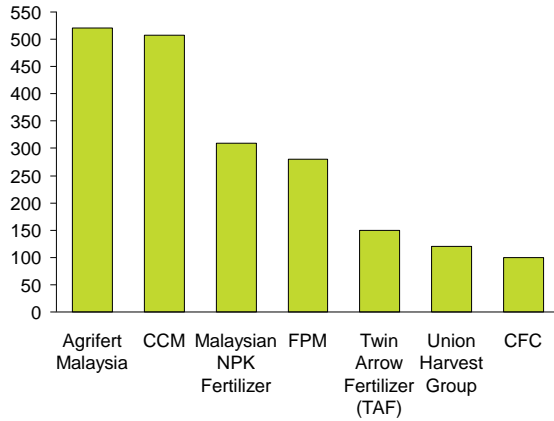
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Malaysia is a key NPK producer in the region

'000 tonnes

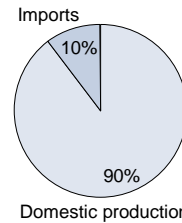
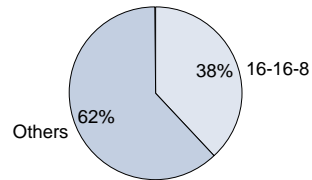
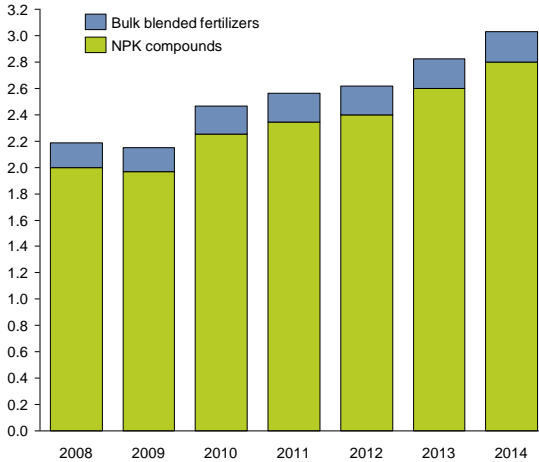
Malaysia's production estimates, 2013/14



Vietnam's NPK market is the second-largest in Southeast Asia

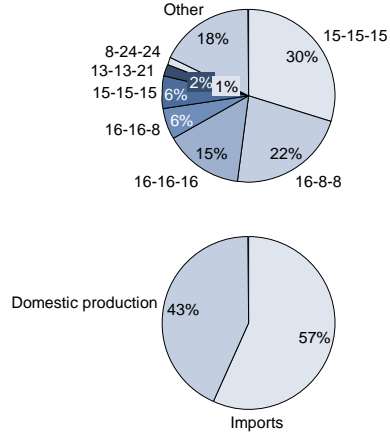
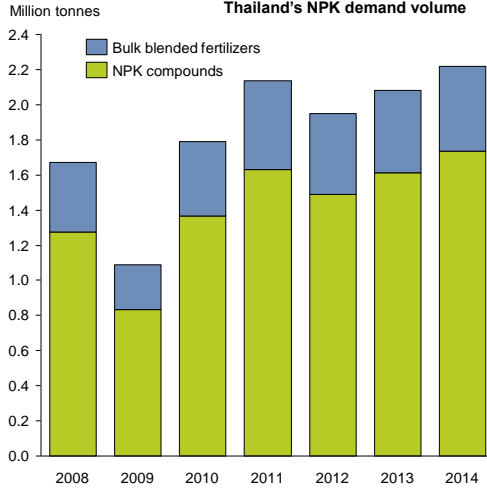
Million tonnes

Vietnam's NPK demand volume



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Thailand's NPK market is mostly driven by paddy, and is also the most important import market in the region



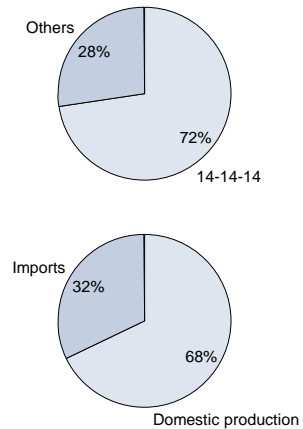
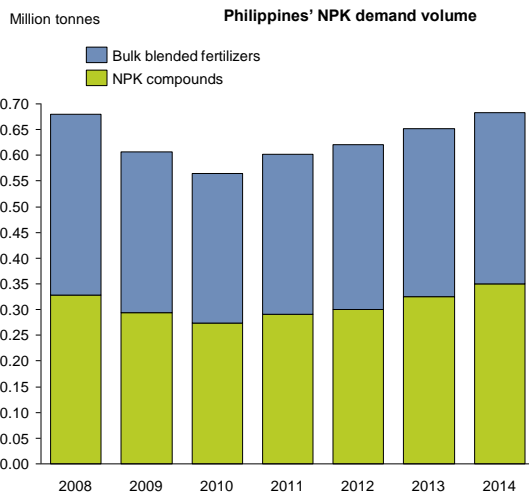
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13

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The Philippines' NPK market is rather different compared with its neighbours in that it used much more blended NPKs



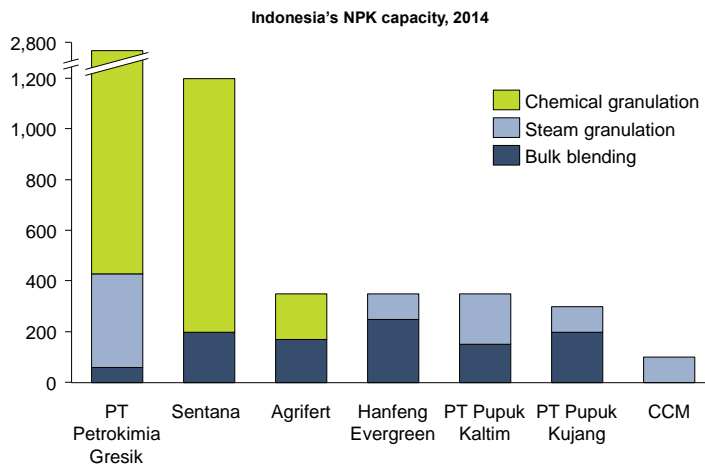
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14

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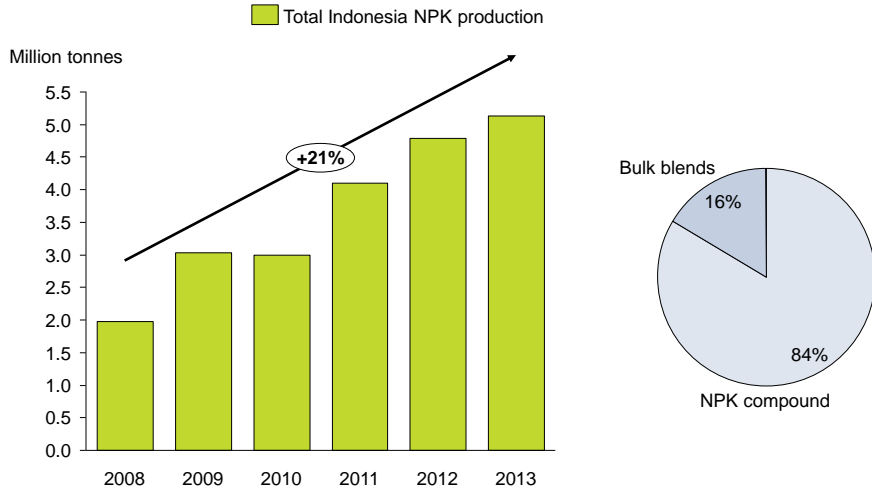
Focus on Indonesia

Indonesian NPK major producers have a combined capacity of almost 5.5 million tonnes



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In a relatively short space of time there has been a significant expansion of Indonesian NPK production capacity to serve both the food and plantation sectors



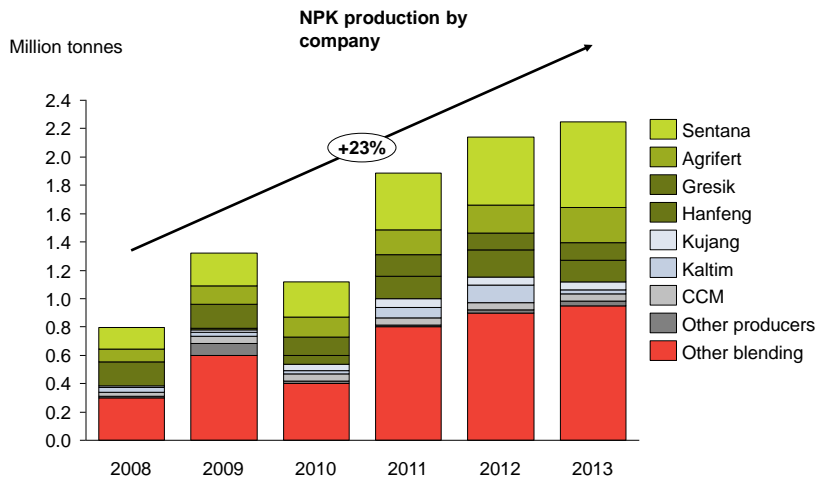
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17

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The increase in production was mainly driven by NPK sales destined to the non-subsidized market



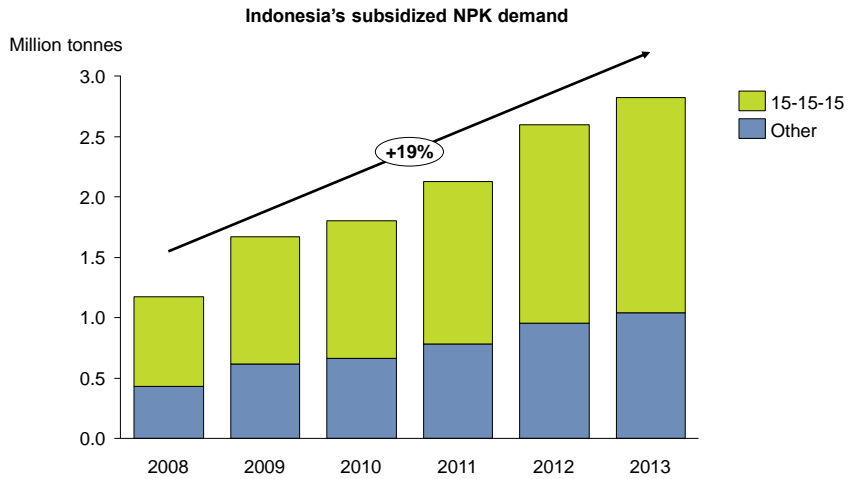
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Subsidized demand is dominated by 15-15-15 compounds



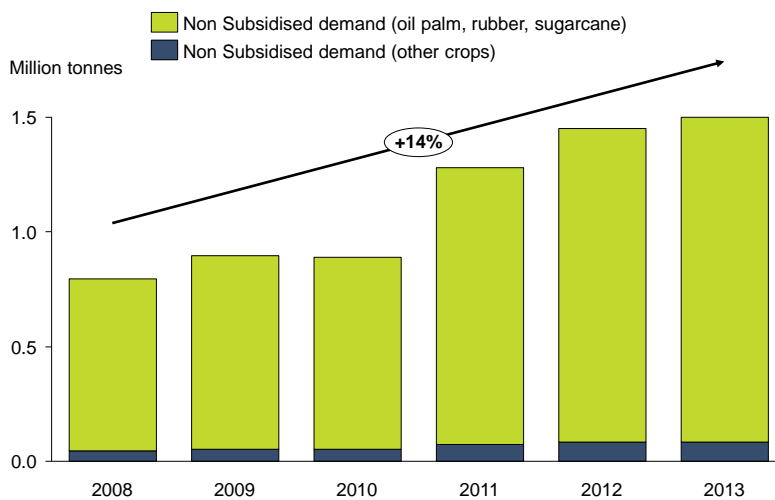
Source: Integer

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Oil palm, rubber and sugarcane account for almost 95% of non-subsidized NPK demand

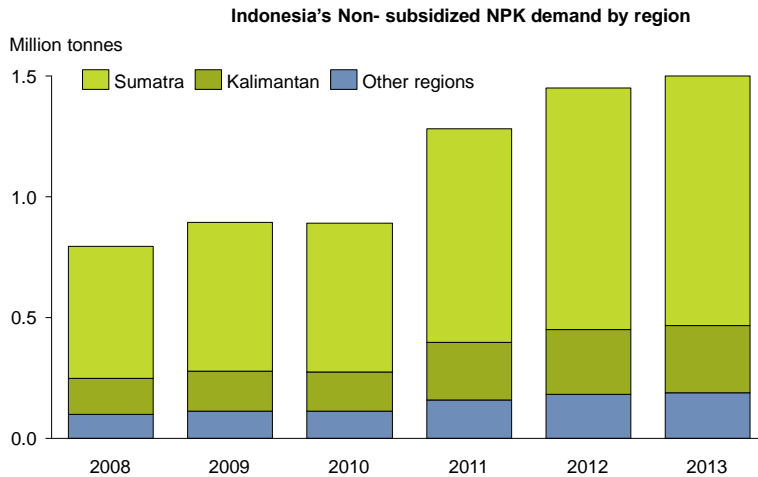


Source: Integer

20

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Demand for non-subsidized NPK is concentrated in Sumatra and Kalimantan



Source: Integer

21

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Indonesian fertilizer market issues and implication for NPK demand

- **Scarcity of fertilizer** due to the price disparity between subsidized fertilizer for crops and non-subsidized fertilizer for estate crops, which often leads to illegal sales of subsidized fertilizer outside of the system. This impacts all fertilizers, including NPKs
- **Market distortion** due to the dual pricing system: on one hand some farmers are affected by inefficient distribution of subsidised fertilizers, on the other they cannot afford non-subsidised product
- **Limited government budget** for fertilizer subsidies, and expected reduction in future budgets
- Until recently the local fertilizer industry was affected by a lack of investment. This was in part reversed recently to the benefit in particular of **new NPK capacity**
- Historical **over-application of urea**, which should benefit NPKs in the longer term
- **We expect plantations to be the main driver of NPK demand** growth in the next few years



22

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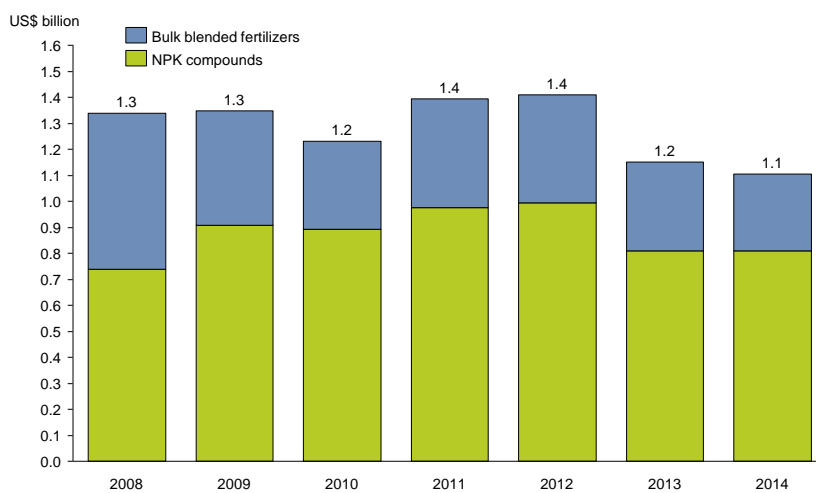
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Japan and South Korea

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Value of Japanese demand by product



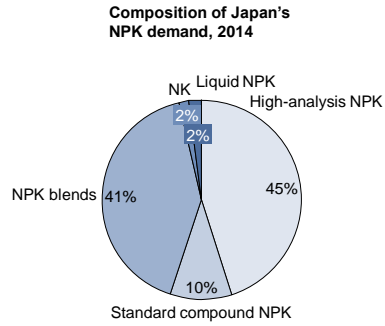
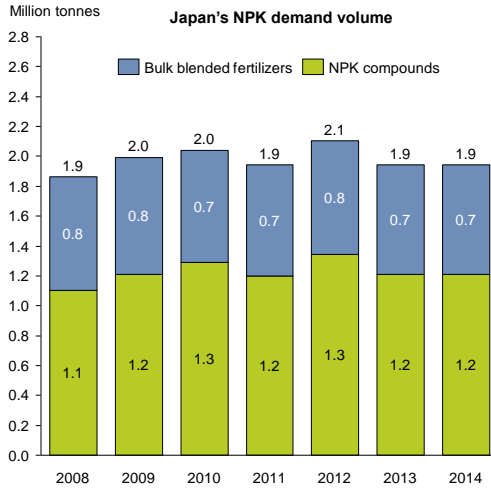
Source: Integer

24

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Japan's NPK demand volume remained relatively stable in the past decade and is expected to slightly decline going forward



Source: JFA, Integer

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Japanese NPK demand is evenly distributed across the territory



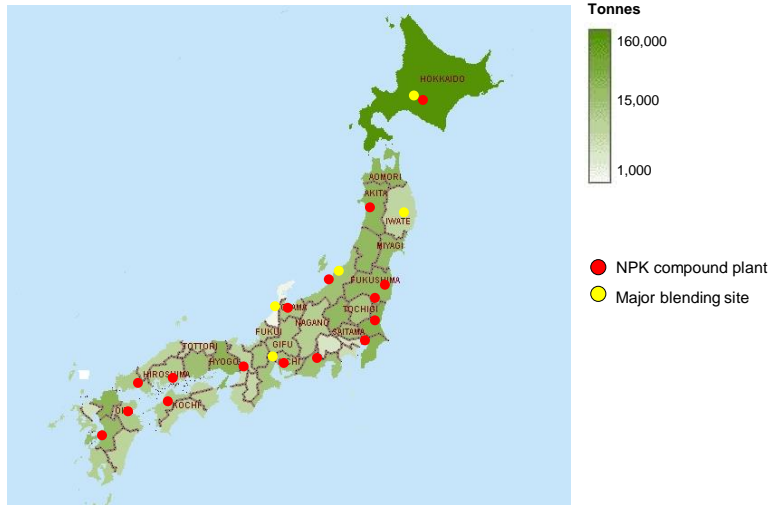
Source: JFA, Integer

26

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And this is reflected by the location of local NPK producers



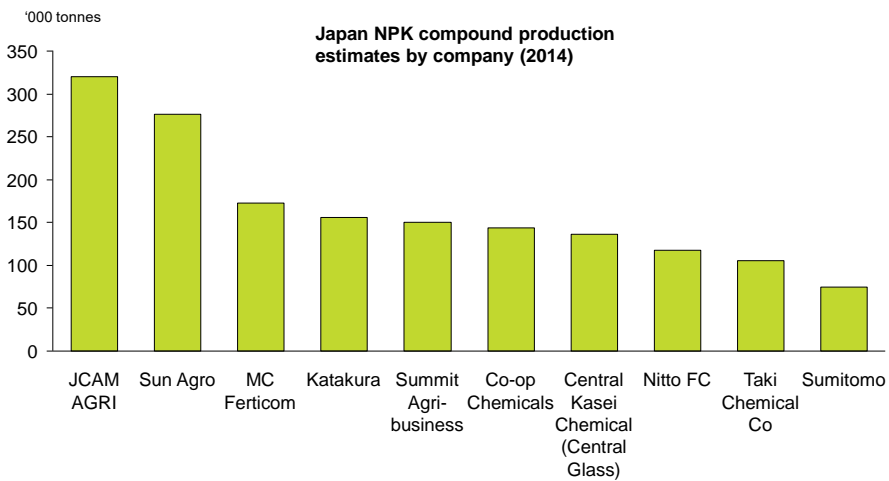
Source: JFA, Integer

27

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Several NPK producers operate in Japan, most of which produce other specialty fertilizers (e.g. CRF/SRF)



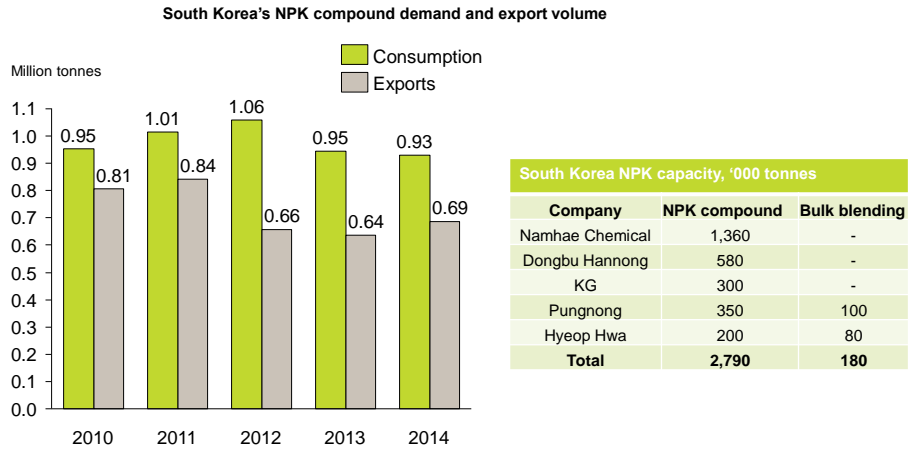
Source: Integer

28

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Similarly to Japan, South Korea's NPK demand is also stagnant. The local NPK producers however are major exporters, unlike their Japanese counterparts



South Korea NPK capacity, '000 tonnes

Company	NPK compound	Bulk blending
Namhae Chemical	1,360	-
Dongbu Hannong	580	-
KG	300	-
Pungnong	350	100
Hyeop Hwa	200	80
Total	2,790	180

Source: Integer, Kosis

29

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Thank you for your attention

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