GreenFeeding

TO ACHIEVE GLOBAL NUTRITION TARGETS 2025

CHINA

Report Card on Carbon Footprints due to Breastmilk Substitutes (BMS)

Breastfeeding is a sustainable and natural source of food and nutrition. On the other hand, industrially manufactured Breastmilk Substitutes are made from dairy and other agricultural products, which generate greenhouse gases (GHG) including methane and nitrous oxide during production, transport and use. Their use also generates a sizable volume of waste, which needs disposal. **GreenFeeding** is a call to make feeding decisions that have dual benefits i.e. practicing breastfeeding which is a natural and sustainable source of food and nutrition for infants and young children (and contributes to achieving global nutrition targets), as well as avoiding BMS and helping conserve the natural environment.

However, the use of milk formula is increasingly driven by sub-optimal implementation of policies and programmes, particularly regulation of marketing of commercial baby foods to enhance optimal breastfeeding practices.

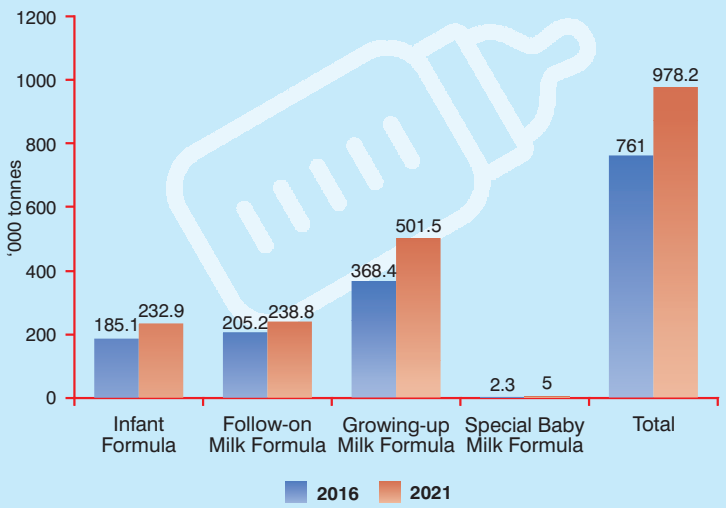
This report-card provides estimates of GHG emissions arising from BMS sale in China. This is set alongside assessment of the implementation of policies and programmes on infant and young child feeding in the country and some suggested actions to improve the situation.

Estimating GHG emissions due to BMS

This report card has used the method developed by IBFAN Asia to estimate the GHG emission [kg CO_2 eq. emissions, that is, the GHG amount that would have the same global warming potential as a kilogram of carbon dioxide gas (CO_2)] per kg of BMS sold. It took into account the GHG emissions due to constituents of BMS like milk powder, vegetable oils and sugars, as found from a literature review. Proportions of ingredients in various BMS products were calculated using Codex Alimentarius guidance on macronutrient composition. Published industry data from Euromonitor International for milk formula sales provided data on volumes of milk formula sold in the country.

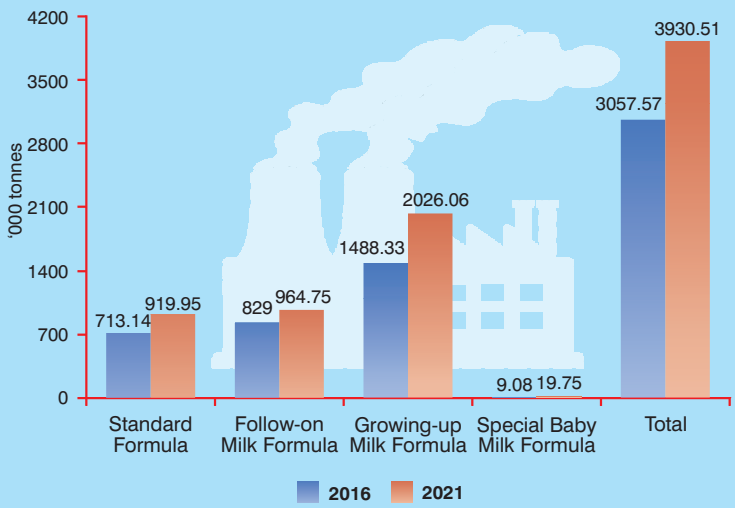
Estimated GHG emissions per kg of BMS ranged from 3.95 kg CO_2 eq. for standard infant formula and special baby milk formula and 4.04 kg CO_2 eq. for follow-up formula and growing up milks.[1]

Sales of BMS in 2016 and projected sales in 2021 ('000 Tonnes)[2]



- In 2016, total sale of BMS in China was 761,000 tonnes, out of which 368,400 tonnes was growing up milks, 205,200 tonnes was follow-up formula and 185,100 tonnes was infant formula. special baby milk formula was only 2300 tonnes.
- Total projected sale of BMS in China in 2021 is 978,200 tonnes out of which 501,500 tonnes is growing up milk, 238,800 tonnes is follow-up formula, 232,900 tonnes is infant formula and 5000 tonnes is special baby milk formula.
- Projections show that there will be about a 28% increase in the overall sales of BMS, with an increase in the sales of all categories of BMS substantially by 2021.

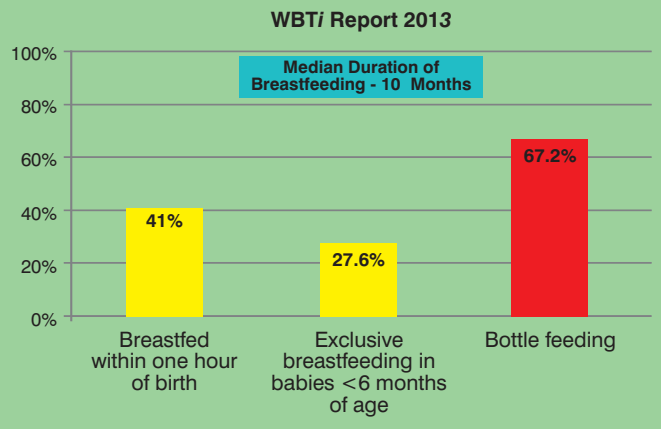
GHG Emissions due to BMS in 2016 and projected emissions in 2021 ('000 Tonnes CO_2 eq.)[1,2]



- Total GHG emissions due to BMS in 2016 was 30,57,570 tonnes of CO_2 eq. out of which 14,88,330 tonnes was due to growing up milks, 829,000 tonnes was due to follow up formula and 731,140 tonnes was due to infant formula.
- Projected total GHG emissions in 2021 due to BMS is 39,30,510 tonnes of CO_2 eq., With the maximum contribution coming from the growing up milks.

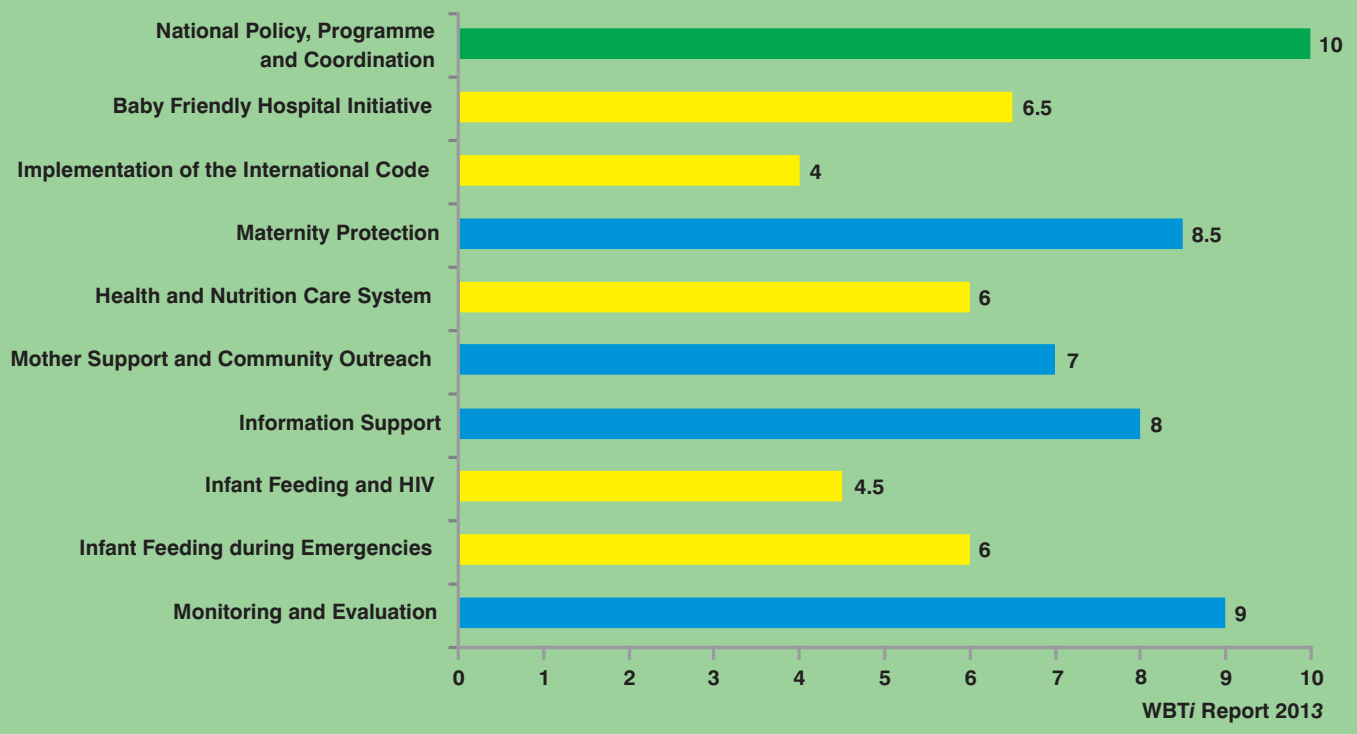
IYCF Practices[3]

A high bottle feeding rate of 67.2%, a low rate of early initiation and exclusive breastfeeding < 6 months and coupled with a median duration of breastfeeding of 10 months need immediate attention. It shows that BMS are introduced early and they replace breastfeeding during the infancy and in the second year of life.



Policies and Programmes on IYCF[3]

To enhance breastfeeding rates and to restrict use of BMS, strengthening of policies and programmes on IYCF is required. WBTi assessment 2013 has revealed many gaps in policies and programmes on IYCF.



- Effective policies and programmes are required to improve breastfeeding practices in hospitals and communities, safe infant feeding practices in HIV and safe infant feeding practices during emergencies.
- More importantly there is a need for effective implementation of the International Code of Marketing of Breastmilk Substitutes[4] by:
  - Strengthening the Code legislation by including all provisions of the Code and subsequent WHA resolutions in the national law.
  - Establishing Code monitoring mechanisms which are independent and transparent, free from commercial influence and empowered to impose legal sanctions.

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1. Dadhich JP, Smith J, Iellamo A, Suleiman A. Report on carbon footprints due to milk formula: a study from selected countries of the Asia-Pacific Region. Delhi: BPNI/IBFAN Asia; 2016.
2. Euromonitor International (2016). Passport-Baby Food in China
3. WBTi report of China 2013. http://www.worldbreastfeedingtrends.org/GenerateReports/countrysubmit.php?country=CN
4. WHO, UNICEF, IBFAN. Marketing of breast-milk substitutes: national implementation of the international code: status report 2016

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IBFAN defending breastfeeding

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