

FINAL REPORT

ON THE ASSESSMENT OF THE

GEOGRAPHICAL BSE-RISK (GBR) OF

VANUATU

27 June 2002

NOTE TO THE READER

Independent experts have produced this report, applying an innovative methodology by a complex process to data that were supplied by the responsible country authorities. Both, the methodology and the process, are described in detail in the final opinion of the SSC on "the Geographical Risk of Bovine Spongiform Encephalopathy (GBR)", 6 July 2000 and its update of 11 January 2002. These opinions are available at the following Internet address:

<http://europa.eu.int/comm/food/fs/sc/ssc/outcome_en.html>

This report, and the opinion of the SSC based on it, is now serving as the risk assessment required by the TSE-Regulation EU/999/2001 for the categorisation of countries with regard to their BSE-status. The final BSE-status categorisation depends also on other conditions as stipulated in annex II to that TSE-Regulation.

1. Data

- The available information was suitable to carry out the qualitative assessment of the GBR. Reasonable worst case assumptions have been used for this assessment in cases where the available information was inadequate.

Sources of data

- Country dossier consisting of information provided from the country's authorities in 2002.

Other sources:

- EUROSTAT data on export of "live bovine animals" and on "flour, meal and pellets of meat or offal, unfit for human consumption; greaves", covering the period 1980 to 2000.
- UK-export data (UK) on "live bovine animals" and on "Mammalian Flours, Meals and Pellets", 1988-1996. As it was illegal to export mammalian meat meal, bone meal and MBM from UK since 27/03/1996, exports indicated after that date should only have included non-mammalian MBM.
- Export data from the Czech Republic, Cyprus, Estonia, Hungary, Lithuania, Slovenia and Switzerland.

2. EXTERNAL CHALLENGES

2.1 Import of cattle from BSE-Risk¹ countries

According to the CD the Republic of Vanuatu (Vanuatu) did not import cattle from the UK. It also was stated that Vanuatu never imported cattle from BSE risk countries other than the UK since 1980. With regard to EU Member States this is confirmed by the Eurostat export statistics for the period between 1980 and 2000. Concerning non-EU BSE-risk countries, this is also confirmed by export data from the Czech Republic, Cyprus, Estonia, Hungary, Lithuania, Slovenia and Switzerland. Export data from the other BSE risk countries were not available in the moment of writing this report.

Vanuatu imported 6 Brahman bulls, 2 African bulls and 12 Brahman cows in 1982 from Australia.

¹ BSE-Risk countries are all countries already assessed as GBR III or IV or with at least one confirmed domestic BSE case.

2.2 Import of MBM² or MBM-containing feedstuffs from BSE-Risk countries

According to the CD, Vanuatu never imported MBM, BM, MM, greaves and/or feedstuffs containing any of these from the UK or from other BSE-risk countries. With regard to EU Member States this is confirmed by the UK export statistics from 1988 to 1996 and the Eurostat statistics for the period between 1980 and 2000. Concerning non-EU BSE risk countries, this is also confirmed by export data from the Czech Republic, Cyprus, Estonia, Lithuania, Slovenia and Switzerland. Export data from the other BSE risk countries were not available in the moment of writing this report.

As a general point the Country explained that it was not necessary to import MBM for cattle because cattle are exclusively fed on pasture. The mild semitropical climate with rainfall all the year round means that pasture grows all the year round.

2.3 Overall assessment of the external challenge

The level of the external challenge that has to be met by the BSE/cattle system is estimated according to the guidance given by the SSC in its final opinion on the GBR of July 2000 (as updated in January 2002).

Apparently no cattle or MBM was ever imported to Vanuatu from BSE risk countries and the overall challenge was always negligible.

3. STABILITY

3.1 Overall appreciation of the ability to avoid recycling of BSE infectivity, should it enter processing

Feeding

All ruminants in Vanuatu are pasture fed or grazed in undeveloped bush country. They do not, according to the CD, receive supplementary feeding.

The CD states that there is one abattoir that also produces MBM. While there are no feed mills in operation in Vanuatu there was one on-farm mixer, which mixed imported grain with local MBM for poultry. This mixer was in operation until 1999.

According to the CD, the annual consumption of MBM (reference period: 2000) equals 74 tons, consumed by pigs, plus 8.5 tons used as fertiliser.

The country dossier indicates that an official feed ban (RMBM to ruminants) has been adopted in 1995. Controls were implemented and started in 1995. The control point is the production point at the abattoir. It is only allowed to sell mammalian MBM for pig and poultry feed and as fertiliser. Audit of sales records and labelling

² For the purpose of the GBR assessment the abbreviation "MBM" refers to rendering products, in particular the commodities Meat and Bone Meal as such; Meat Meal; Bone Meal; and Greaves. With regard to imports it refers to the customs code 2301 10 "flours, meals and pellets, made from meat or offal, not fit for human consumption; greaves".

is the way monitoring and control is declared to be performed regarding sale and use of product.

Cross-contamination

The CD indicates that “no mammalian MBM is allowed to be sold for anything but pig and poultry feed. Bags of domestic MBM are labelled: “Not to be fed to cattle, sheep or goats”.

Cross-contamination in the farm mixer would have been likely until 1999, if this mixer produced feed for ruminants as well as for non-ruminants. This has been declared not to be the case.

Pig and poultry feed and fertilisers that contain MBM, or MBM as such, are sold or can be sold to farmers and (accidental) cross feeding cannot be excluded. Even if all locally produced MBM is clearly labelled “not to be fed to cattle, sheep or goats”; imported commercial pig and poultry feed (from Australia, New Zealand and New Caledonia) does not carry any instructions on the sacks.

It is indicated that, with respect to the possibility of cross-contamination, no testing of cattle feed could be done as no such feeds existed in the country.

However, this does not preclude that feed intended for other animals (accidentally) reached cattle, be it through cross or misfeeding. It also cannot be excluded that MBM containing fertiliser were being consumed by cattle, e.g. if used on pasture.

Rendering

Currently (May 2002) there is only one abattoir in Vanuatu that produces tallow, used for electricity generation, and as a by-product MBM, in its rendering facility. Bovine material including bovine brain and spinal cord was therefore rendered into MBM for feed production from 1980 until 1999.

All rendering raw material comes from this slaughterhouse and fallen stock was not processed in this plant but buried. The same holds true for slaughter waste from animals slaughtered in other abattoirs on any of the many islands of Vanuatu.

A batch process (process conditions: 150 °C; 120 min; 5 bar) is performed. It is not clear if the 150°C and 5 bar do refer to the conditions within the rendered material or within the steam used to heat the cooker.

SRM and fallen stock

No SRM ban is in place. According to the CD fallen bovine stock is not rendered for feed in Vanuatu from 1980 to 1999. Fallen stock is buried.

Conclusion on the ability to avoid recycling

In light of the available information it is concluded that cattle were unlikely to deliberately being fed feeds containing MBM. However, some accidental exposure of cattle to MBM might have taken place.

In addition it is assumed, as no detailed information was available that the rendering process in Vanuatu could not have reduced BSE-infectivity, should the agent have entered the process.

Therefore, if the BSE-agent would be present in the country, it could be recycled.

3.2 Overall appreciation of the ability to identify BSE-cases and to eliminate animals at risk of being infected before they are processed

Cattle population structure

The total cattle population is about 135,000 cattle (year 2002), while the dairy cattle population is only around 440 cows. The dairy cattle population has increased obviously since 1980 by a factor of 4 while the total cattle population increased by a factor of 1.2.

Vanuatu is a beef producing country with only one dairy herd that produces milk for the local consumption and some soft cheese. This dairy herd is run on pasture but has a coconut supplement fed at milking. The average milk yield for 2001 was 6.66 l/day in the only dairy herd.

The beef cattle are run in an extensive system and fed exclusively on pasture. The system encourages longevity in the breeding stock so that it is not uncommon to find beef cows 13 to 15 years old still producing calves every year.

According to the CD the cattle population structure did not change from the period 1980-1984 until current (year 2002). The male cattle subpopulation (>24 months) is used for meat production (75%) and breeding (25%), while the female subpopulation is used for meat production (about 8%), as dairy cattle (about 0.4%) and for breeding (about 92%).

Beef cattle (male & female) aged more than 24 months is slaughtered at an average age of 2.5 years (30 months). The average age at slaughter of cattle (male and female) used for breeding uniformly equals 7 years. Age at slaughter of dairy cattle is 9 to 10 years.

There are 3 mixed farms i.e. farms that hold both cattle and pigs. It is assumed that this does not include all farms that raise, in addition to cattle, some pigs or poultry for their own consumption.

BSE surveillance

BSE is notifiable in Vanuatu since 1992 (Animal Disease Control Act). The criteria for notifying a BSE suspect is declared to be the notification of any adult (over 2 years) animal with nervous signs including changes to locomotion especially dragging of hind limbs, excitability, recumbence and any other signs suggestive of a nervous disorder and unresponsive to treatment for other diseases.

In order to ensure notification, awareness training is implemented since 1995. Awareness training includes training of veterinary staff and farmers on the symptoms to look out for using descriptions and video.

A compensation scheme is not available.

On the basis of the available information, passive as well as active BSE surveillance is not existent. A program is in preparation to examine all brains from culled cattle from the one dairy farm in Vanuatu, i.e. all fallen stock, emergency slaughter and normal slaughter. This will involve about 30 to 40 examinations per year. In addition any fallen stock from beef cattle over 24 months of age will be examined. Examinations will be done in New Zealand using the Australian and New Zealand diagnostic standard for TSE exclusion.

3.3 Overall assessment of the stability

For the overall assessment of the stability, the impact of the three main stability factors (feeding, rendering and SRM-removal) and of the additional stability factor, BSE-surveillance, has to be estimated. Again, the guidance provided by the SSC in its opinion on the GBR of July 2000 is applied.

Feeding

Before 1995 feeding cattle with MBM was legally possible but is regarded unlikely in view of the specific structures of the BSE/cattle system of Vanuatu. However, pig and poultry feed contains MBM and cross feeding cannot be excluded. As no controls are in place to monitor the appropriate implementation of the feed ban of 1995, feeding is regarded as “**reasonably OK**” before and after this ban.

Rendering

One rendering plant exists, processing bovine waste including SRM but excluding fallen stock. The rendering process is unclear and rendering is therefore assessed as “**not OK**”.

SRM-removal

There is no SRM ban and SRM is rendered. Therefore SRM-removal is “**not OK**” throughout the reference period. Fallen stock is buried.

BSE surveillance

Awareness training has been established since 1995 but no BSE suspects have ever been detected. An additional programme is under development to examine all brains from cull cattle, and adult fallen stock, from the one dairy farm, about 40 per year.

Stability of the BSE/cattle system in Vanuatu over time					
Stability		Reasons			
Period	Level	Feeding	Rendering	SRM removal	BSE surveillance
1980 – at current	Very unstable	Reasonably OK	Not OK	Not OK	↓

Table 1: Stability resulting from the interaction of the three main stability factors and the BSE surveillance. The Stability level is determined according to the SSC-opinion on the GBR of July 2000.

On the basis of the available information, the overall stability of the BSE/cattle system of Vanuatu is assessed as having been very unstable since 1980. This implies that the BSE agent, should it have entered the country, would have been recycled and amplified.

4. CONCLUSION ON THE RESULTING RISKS

4.1 Interaction of stability and challenges

In conclusion, the stability of the Vanuatu BSE/cattle system in the past and the external challenges the system had to cope with are summarised in the table below. From the interaction of the two parameters "stability" and "external challenge" a conclusion is drawn on the level of "internal challenge" that emerged and had to be met by the system, in addition to external challenges that occurred.

According to the available data, the BSE/cattle system of Vanuatu was since 1982 not exposed to a significant external challenge.

INTERACTION OF STABILITY AND EXTERNAL CHALLENGE IN VANUATU			
Period	Stability	External Challenge	Internal challenge
1980 –	Very unstable	Negligible	Highly unlikely

Table 2: Internal challenge resulting from the interaction of the external challenge and stability. The internal challenge level is determined according to the guidance given in the SSC-opinion on the GBR of July 2000.

4.2 Risk that BSE infectivity entered processing

Due to the fact that no BSE infectivity entered the country, there was no risk that BSE infectivity entered processing.

4.3 Risk that BSE infectivity was recycled and propagated

Due to the fact that no BSE infectivity entered the country, there was no risk that BSE infectivity was recycled or propagated.

5. CONCLUSION ON THE GEOGRAPHICAL BSE-RISK

5.1 The current GBR as function of the past stability and challenge

The current geographical BSE-risk (GBR) level is *I*, *i.e. it is highly unlikely* that domestic cattle are (clinically or pre-clinically) infected with the BSE-agent.

5.2 The expected development of the GBR as a function of the past and present stability and challenge

As long as no external challenge occurs, the GBR will remain as low as it is. However, given the low stability of the system, any such external challenge could lead to the building-up of an internal challenge.

5.3 Recommendations for influencing the future GBR

Improving stability would make the system less vulnerable to authorised or un-authorised imports.