

# Export of Sodium Bicarbonate to Nepal

ERIC VAN NES- UNIVERSITY OF GUELPH



# Where is Nepal Located?



<http://www.lahistoriaconmapas.com/atlas/country-map02/nepal-map-of-world.htm>

## Quick Facts:

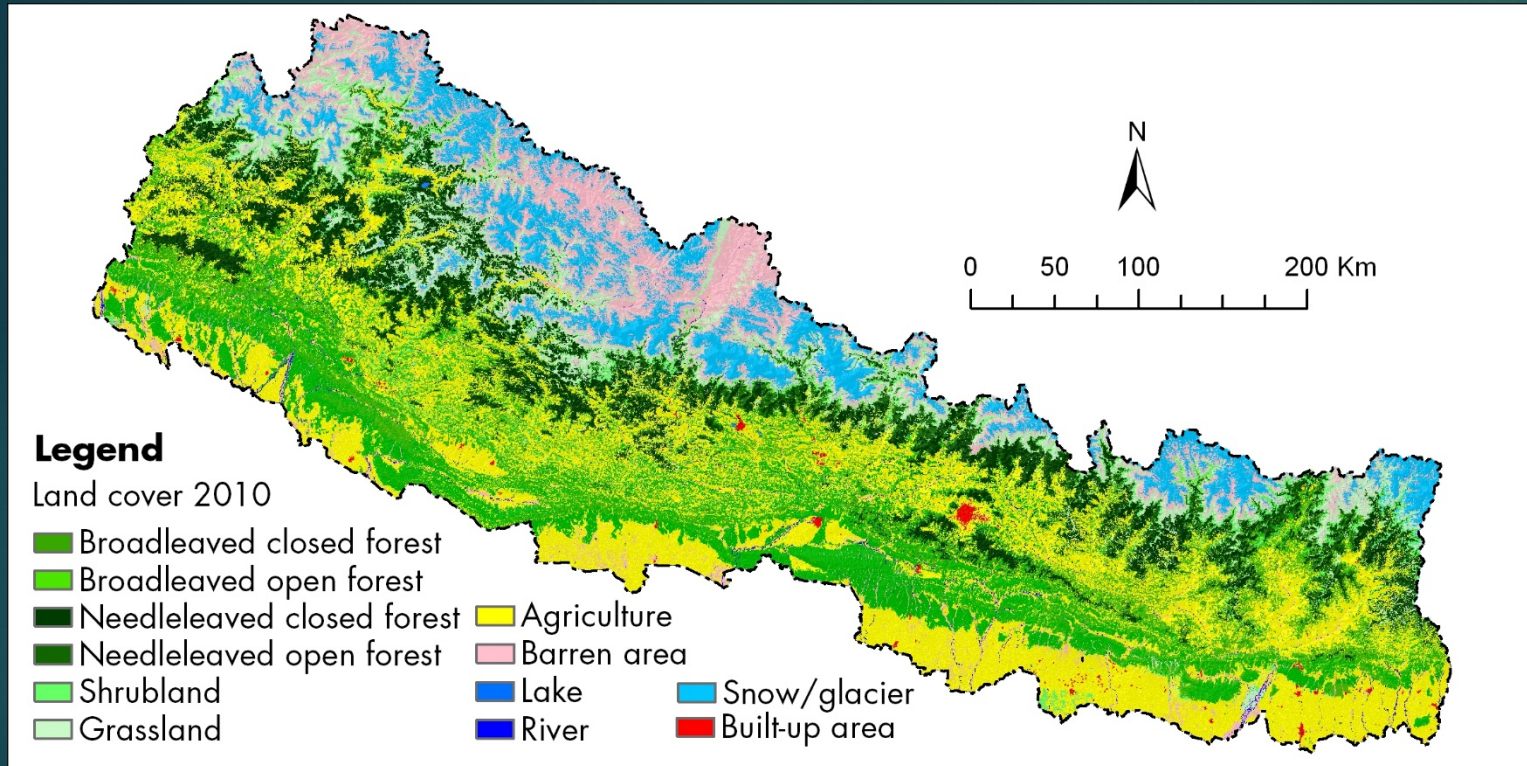
- Population of 29 million
- Urban population 17%
- Rural population 83%
- Parliamentary Democracy with Prime Minister
- Food deficient country

[https://www.cia.gov/library/publications/the-world-factbook/geos/print\\_np.html](https://www.cia.gov/library/publications/the-world-factbook/geos/print_np.html)





# Regions in Nepal



[https://commons.wikimedia.org/wiki/File:Land\\_cover\\_map\\_of\\_Nepal\\_using\\_Landsat\\_30\\_m\\_\(2010\)\\_data.jpg](https://commons.wikimedia.org/wiki/File:Land_cover_map_of_Nepal_using_Landsat_30_m_(2010)_data.jpg)

Three topological regions in Nepal:

- Mountain region
- Hill region or mid hills
- Plains region

Land use:

- 17% farmland
- 15% permanent pasture
- 42% woodland

[https://www.cia.gov/library/publications/the-world-factbook/geos/print\\_np.html](https://www.cia.gov/library/publications/the-world-factbook/geos/print_np.html)





# Dairy Industry in Nepal

- ▶ 3.8 million buffalos
- ▶ 7 million cows
- ▶ Many small farms scattered across the hill and plain regions
- ▶ 1.4 million MT of milk produced per year
- ▶ 71.1% from buffalo
- ▶ 28.9% from cattle
- ▶ 160 765 MT of this milk is processed





# Sodium Bicarbonates effect in Cattle

- ▶ Acts as a buffer in the rumen
- ▶ When cow rations are suddenly changed the pH in the rumen changes
- ▶ High acid levels can damage the papillae lining of the stomach
- ▶ Result in an increase in cow health and milk production





# Benefits to Nepal

- ▶ Increase health and milk production of cows
- ▶ Increase profit for farmer
- ▶ Will create jobs in transportation and sales
- ▶ Benefit company that distributes product



## Trivenifeed



<http://www.trivenifeed.com/>





# Benefits to Canada

- ▶ Increase in sodium bicarbonate distribution through pestell minerals
- ▶ Increase in trucking and management jobs
- ▶ Increase collaboration between Canada and Nepal



<http://www.anacan.org/en/news-events/events/anac-annual-convention/sponsors>





# Conclusion

- ▶ Export of sodium bicarbonate to Nepal will create jobs and increase profit for farmers
- ▶ Increase food production in Nepal
- ▶ Export from Canada is not feasible as China is the worlds largest producer of sodium bicarbonate





# Further Information

- ▶ <ftp://ftp.fao.org/TC/CPF/Country%20NMTPF/Nepal/thematic%20studies/Dairy.pdf> "Dairy sector in Nepal"
- ▶ <https://www.pestellminerals.com/> "Canadian Benefits"
- ▶ [https://www.cia.gov/library/publications/the-world-factbook/geos/print\\_np.html](https://www.cia.gov/library/publications/the-world-factbook/geos/print_np.html) "Nepal facts"

