



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*



# **Challenges for Australia in mining investment: lessons learned from mega-projects in small developing countries**

Brian Fisher

Contributed presentation at the 60th AARES Annual Conference,  
Canberra, ACT, 2-5 February 2016

*Copyright 2016 by Author(s). All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.*

# Challenges for Australia in mining investment: lessons learned from mega-projects in small developing countries

Brian Fisher  
BAEconomics Pty Ltd

## Guinea – country description

Located in West Africa

Population about 12m

87% Muslim

5 ethnic groups; 3 make up about 80% of population

French the national language

Dependency ratio 87%

Birth rate 18<sup>th</sup> highest in the world

37% urbanised

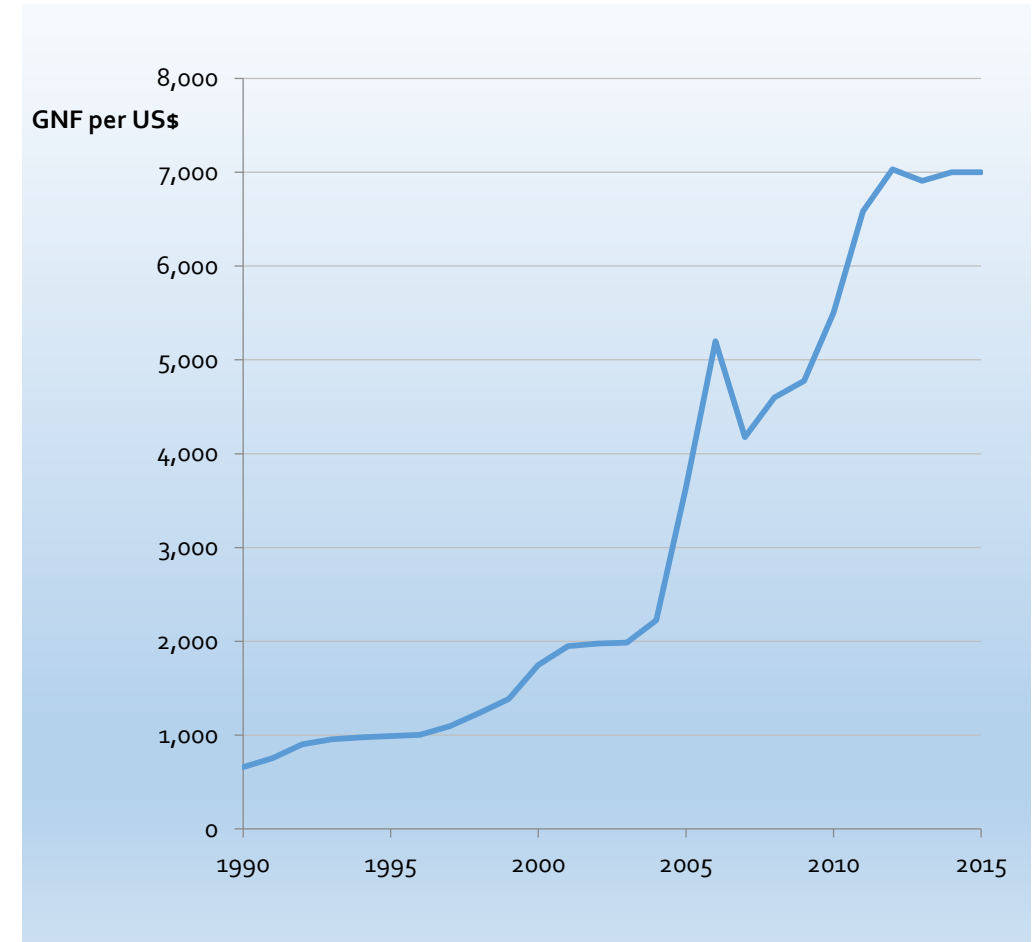
Literacy 30%

GDP per son (PPP) \$1 300

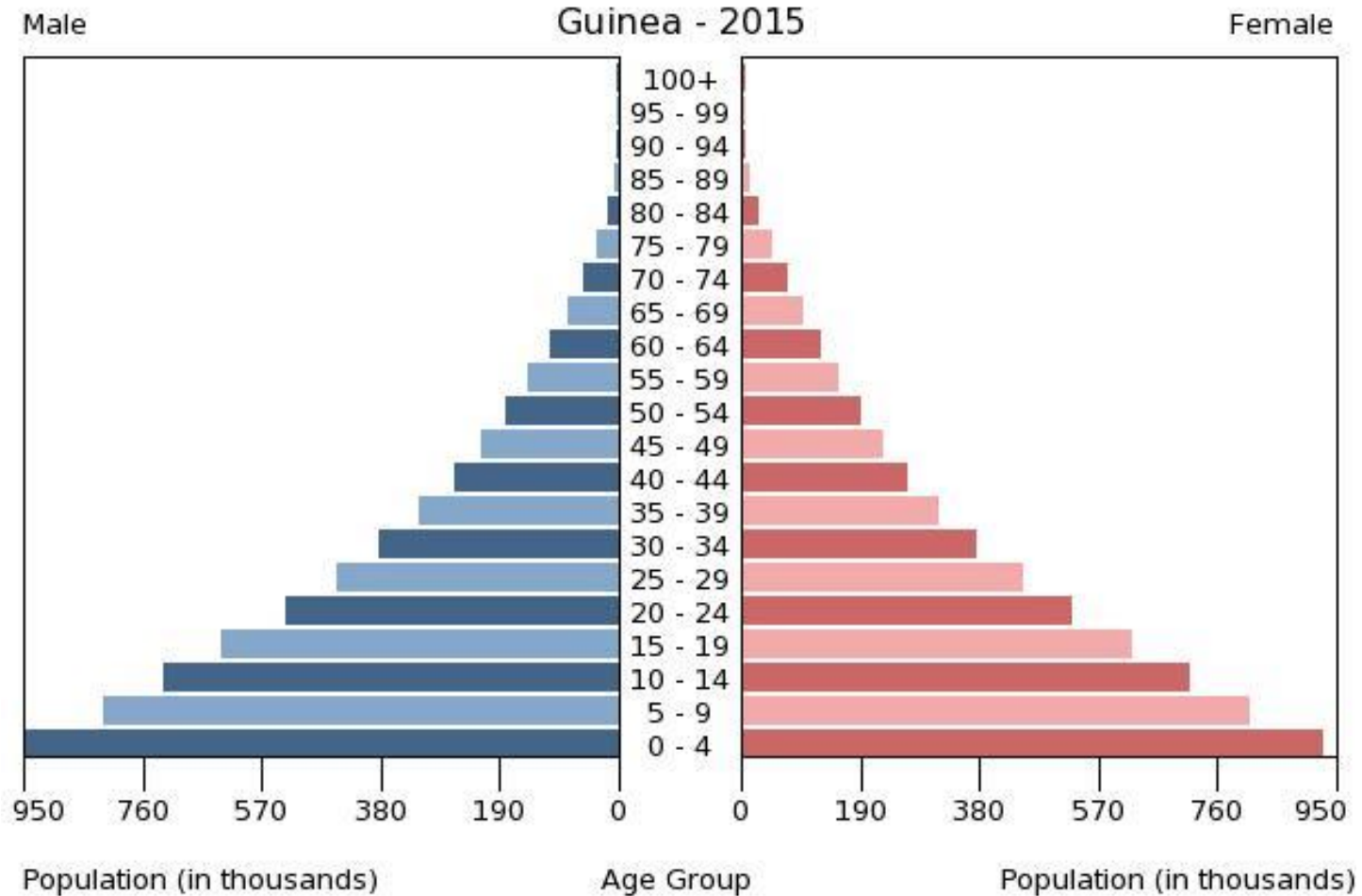
Degree of risk of major infectious diseases: very high

Major producer of bauxite and alumina; producer of diamonds and gold; potential major iron ore producer

## Nominal exchange rate



# Guinea – population characteristics



Simandou exploration site



# Mongolia – country description

Located in North Asia

Population about 3m

53% Buddhist; 39% no religion

1 major ethnic group

Mongol the national language

Dependency ratio 48%

Birth rate 92nd highest in the world

72% urbanised

Literacy 98%

GDP per person (PPP) \$11 900

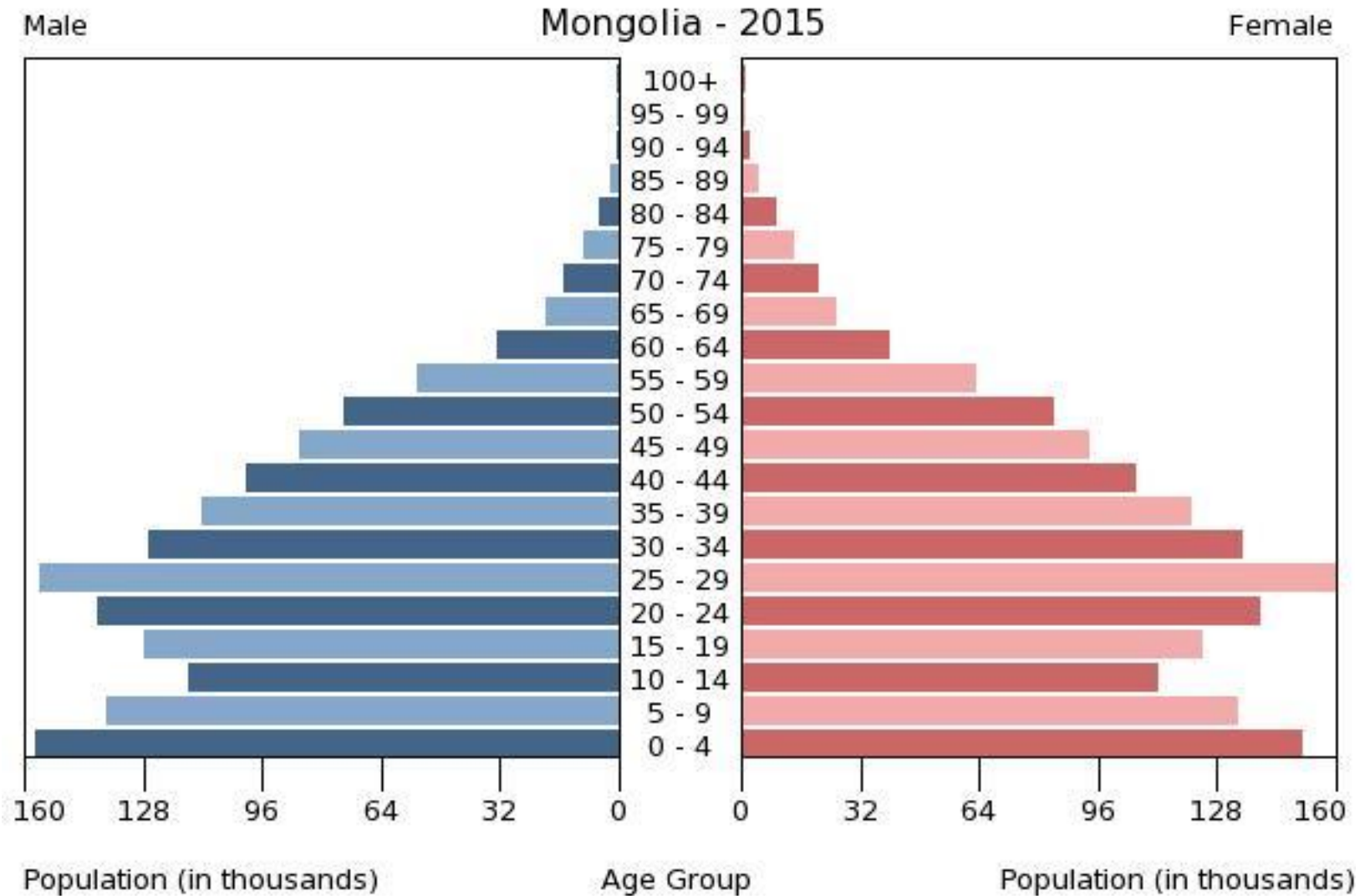
Degree of risk of major infectious diseases:  
moderate/low

Major producer of copper; producer of coal and gold;  
potential major coal producer

## Nominal exchange rate



# Mongolia – population characteristics





Oyu Tolgoi mine site



## Project characteristics that exacerbate friction between host govts and foreign developers

- Many project proponents consider sovereign risk to be exogenous
- But often their actions endogenise this risk
  - Short term incentive to 'talk up' the project at initiation of negotiations with government – heightens govt and local community expectations
  - Profession not blameless here – excessively high multiplier estimates from some studies
  - National govt usually 'owns' the resource but lacks capital to develop it – often earns equity in the project by foregoing dividends in the early stages and may also demand pre-payments of tax to be offset by even longer dividend deferrals – result is growing timing gap between community expectations of returns and actual payments of dividends despite the ongoing successful operation of the project.
  - Typically skilled labour is in short supply and the project bids up wages in the local region – negative impact on traditional agriculture sector and unequal distribution of benefits between regions can lead to political tensions – made worse in jurisdictions like Peru where local authorities are allocated a large share of project returns – those regions with projects do much better than those without.
  - In the development phase the real exchange rate usually appreciates (relative to the reference case) putting further pressure on traditional sectors

## System shock – project size relative to local economy and speed of development

- Proponents are usually driven by NPV calculations and the usual way to maximise NPV is to develop the project as quickly as possible – the ‘big bang’ approach
  - But this puts all sorts of strains on the local economy
  - Initial Dutch disease effect larger than otherwise might have been the case both because of the initial surge in FDI and because the first major development agreement is often taken as a ‘gating’ event by the frontier investment community
  - In Mongolia FDI rose by 168% in 2010 and a further 173% in 2011. In Guinea FDI increased by 824% in 2011
  - These projects may simply overwhelm the capacity of local officials expected to do the project approvals
  - At the time the engineering drawings for the concentrator were submitted for Oyu Tolgoi the Ministry was required to review more than 13 000 documents in the space of a few months – more than it had received in many years.
  - Any upfront payments made by the proponent (that are perhaps supposed to be used to develop needed infrastructure) simply add to the approval burden

Misaligned incentives, system shock and perceptions of 'unfair' share exacerbate conflicts between proponents and host governments

- What can be done?
- Carefully consider ownership structure up front to avoid later misalignment of incentives – perhaps it is better to concede more equity than to produce a shock that could delay later approvals for several years
- As much as possible avoid prepayments of tax to minimise economic and capacity shocks
- Consider staged development rather than the 'big bang'

## Final points

- Over the past 20 years the extractive industry has made major advances in its approach to environmental, health and safety issues.
- But few companies apply sufficient resources or make the necessary cultural and organisational changes necessary to ensure that the issues discussed above are fully understood from the board room to the operational level
- Major companies have dedicated teams who spend many person years addressing these issues
- But one false move by, perhaps, an 'insensitive' engineer in the field can set back a project with the local community for months or even years