



Building a Sustainable Biofuels Business: an Overview of the Market and BP Biofuels

BP Biofuels
a growing alternative

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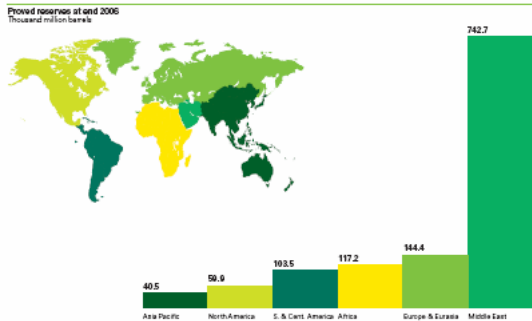
Presentation Outline



1. Why Biofuels?
2. Where Biofuels?
3. BP Biofuels' Approach
4. Sustainability is Core
5. Takeaway: Key Points

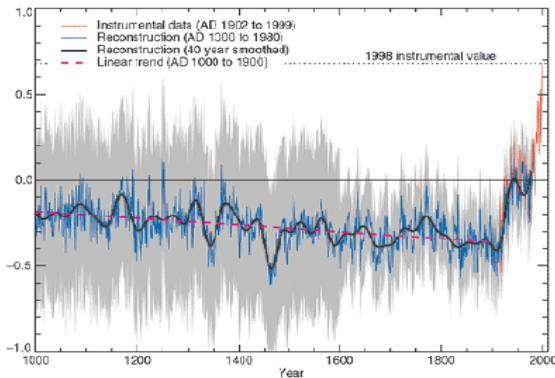
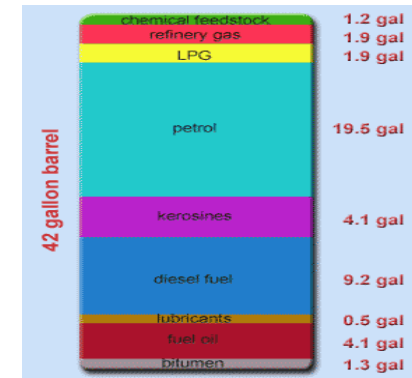
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Why Biofuels?: An Oil Company's Perspective



75% of proven oil reserves are in volatile parts of the world

70% of oil consumption is used for mobility



Transportation accounts for almost 20% of daily carbon emissions

Fuel consumption for transportation will grow 55% by 2030

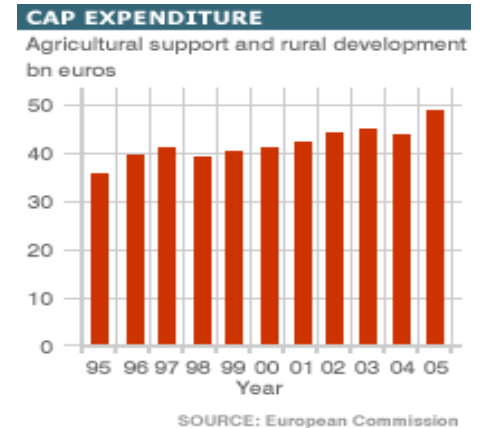


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Why Biofuels?: An *Energy Company's* Perspective



More than 3 billion people live in poverty worldwide, many of them in under-developed agrarian areas. LDCs and Multilaterals advocate increasing agricultural productivity as a primary means to alleviating and conquering poverty.



Farmers in OECD nations are a potent political lobby: European Common Agricultural Policy subsidies represent almost half the EU budget (€41bn in 2008); the US is similarly supportive of its farmers



The United States wants to replace 15% of gasoline demand with biofuels in 10 years (35 billion gallons/year); The EU has similar aspirations

Future lignocellulosic biofuel products could reduce GHG impact of transport fuel by 90% and help countries meet targets



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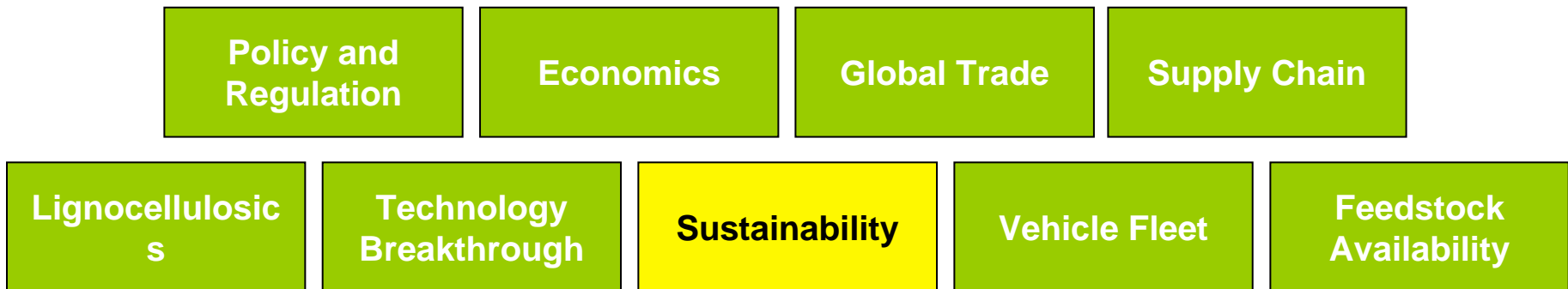
Bottom Line: A Large Global Market... with Challenges



The demand for biofuels is likely to grow significantly over the next 10-20 years:

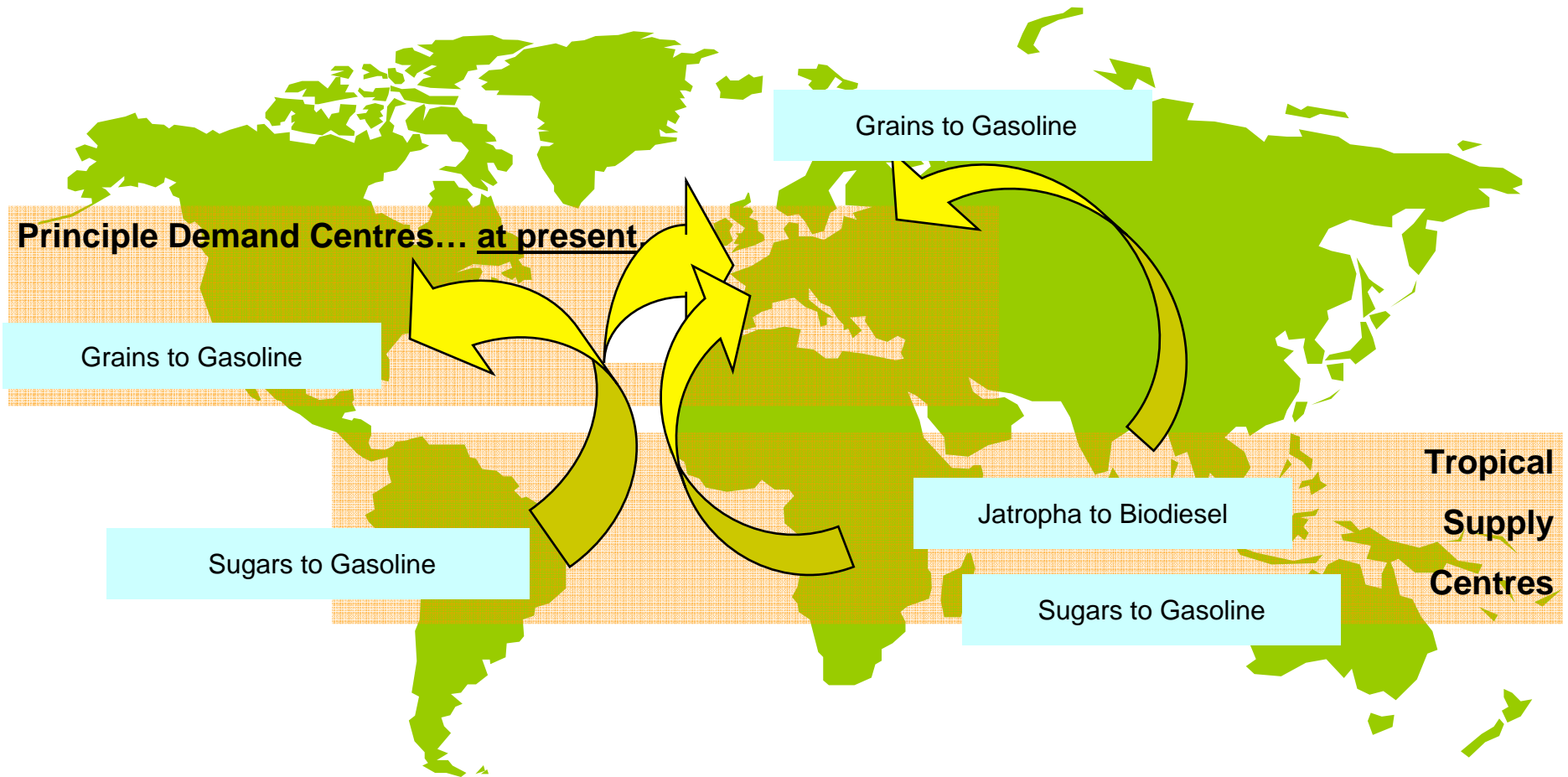
- Potentially between **85** and **195 billion gallons** per year by 2030
- Replacing between **10%** and **24%** of gasoline & diesel demand

But factors will affect the actual penetration level:



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Where Biofuels?: A Global Market and a Global Vision

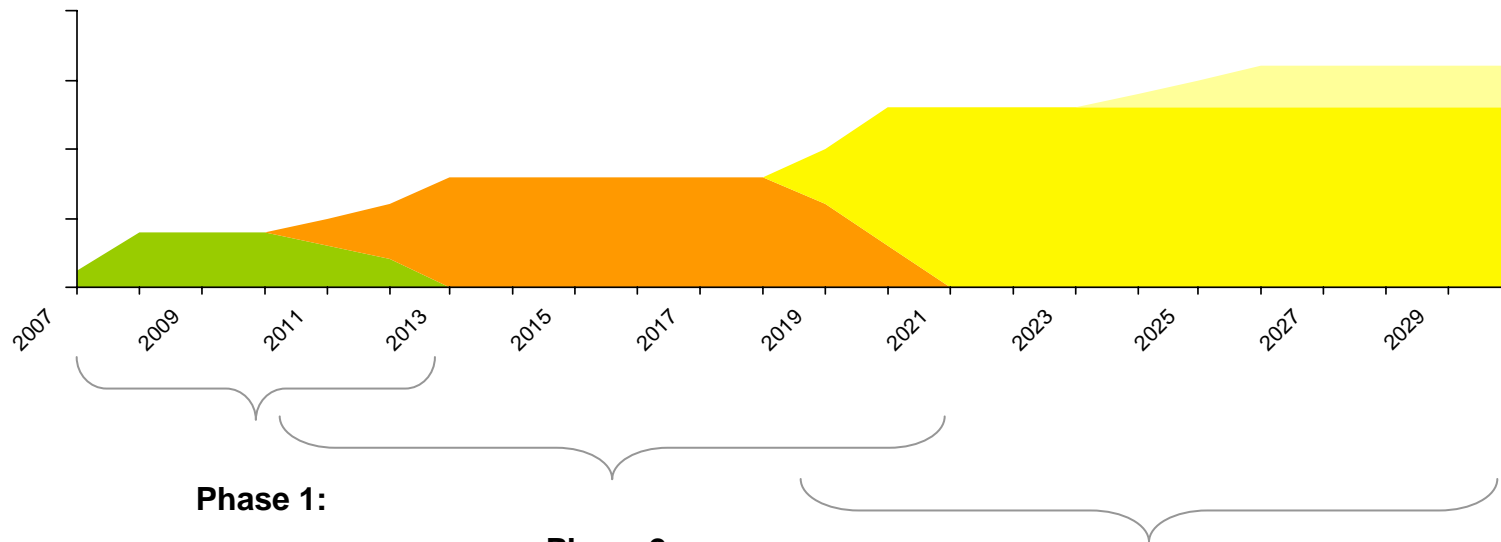


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BP's Approach: Phased Participation in a Global Industry



BP Biofuels: Phased Participation



Phase 1:

2007 - 2014

Learning:

- Elite platforms
- Alliances
- Experience
- Regional balance

Phase 2:

2011 - 2022

Deepening:

- Extend winning themes
- Build platforms for next-stage technology
- Extend geographies

Phase 3:

2019 and Beyond...

Deployment:

- Build scale
- Broaden technology

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BP Biofuels Engagement to Date



Energy Biosciences Institute \$ 500m Investment:

- A **\$500m** investment will provide the foundations for lignocellulosic business through bioscience-based research

Bio-ethanol:

- BP's own volumes of ethanol blended into gasoline have **increased 25%** from 2005 to 2006
- Current business development activities looking at opportunities for feedstock and refining investments worldwide
- World scale bio-ethanol plant **420m litres pa / \$400m**. Initial production will be bioethanol; will look at feasibility of converting to bio-butanol once the required technology is available

Bio-diesel:

- BP will demonstrate feasibility of jatropha production with The Energy and Resources Institute in Andhra Pradesh, India. **\$9.4-million** over next 10 years will be used to plant 8,000 hectares and install processing equipment.
- BP and D1 Oils will invest **+/- \$160 million** 2007-2012 in jatropha production and development
- D1 Oils will contribute **172,000 ha** of existing plantations in India, Southern Africa and South East Asia and share its plant science programme and seedlings
- BP/D1 are expected to become the world's largest commercial producers of jatropha, producing up to **2 million tonnes** of jatropha oil per year

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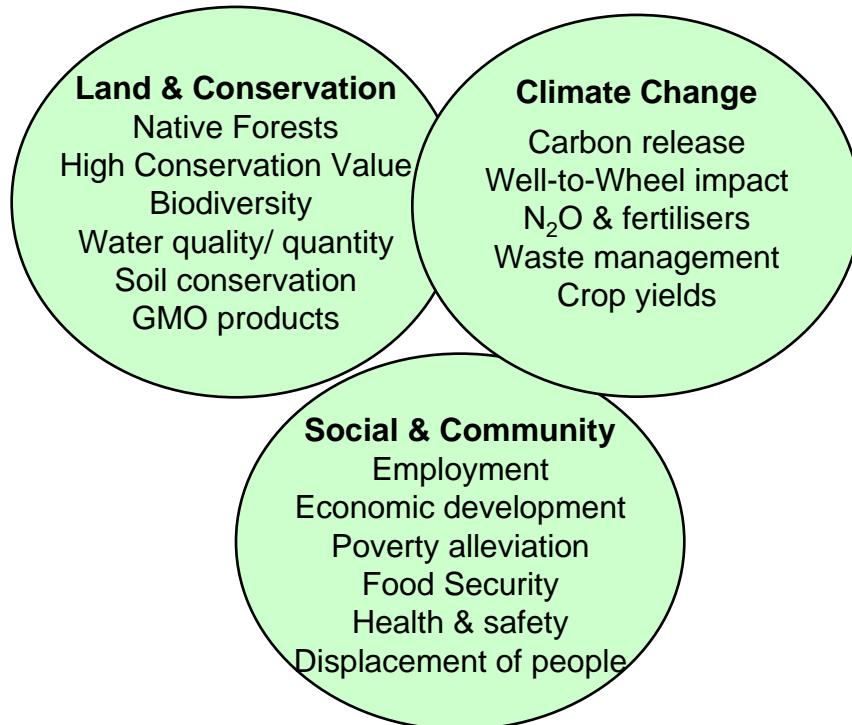
BP Biofuels: Objective is Sustainability



BP Principles:

- Sustainability is core to BP's involvement throughout the value chain and is an essential condition for long term shareholder value creation.
- We support mandatory certification and reporting standards at a global level – with monitoring and enforcement – to bring the industry to new thresholds of sustainable performance.
- There must be a global meta-standard to level the competitive playing field for all actors; to facilitate product fungibility for low cost delivery; to create a more reliable investment environment and to retain stakeholder and public support.

Sustainability Issues Facing the Industry:



BP Engagement Activities:

- Member – Roundtable for Sustainable Palm Oil
- Member – Roundtable for Responsible Soy
- Member – Council on Sustainable Biomass Production
- Member – BIO Working Group (Washington DC)
- Member – EUROPIA Working Group
- Steering Board – Roundtable for Sustainable Biofuels

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Conclusions



- There is a large, global market emerging for biofuels.
- Drivers for this include alternative fuel supply, and also creation of economic opportunity in developing countries.
- BP Biofuels views biofuels as a global opportunity, and is following a phased approach to its business and investments.
- Sustainability is core to BP's principles and to its biofuels business strategy. We seek ongoing dialogue and see partnership as essential.

Thank you for your attention.