Achieving Equitable Sustainability:

Restructuring South Africa's commercial fishing sector for sustainable and equitable exploitation

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EEP 142, Spring 2005

South Africa: Fish and Fishing

- 3,000 km coastline
- Oceanic upwelling → nutrients, biodiversity
- National heritage and economic asset
- Recreational, subsistence, and commercial users
  - focus on commercial subsector
    - fewer, larger participants
    - history of quotas

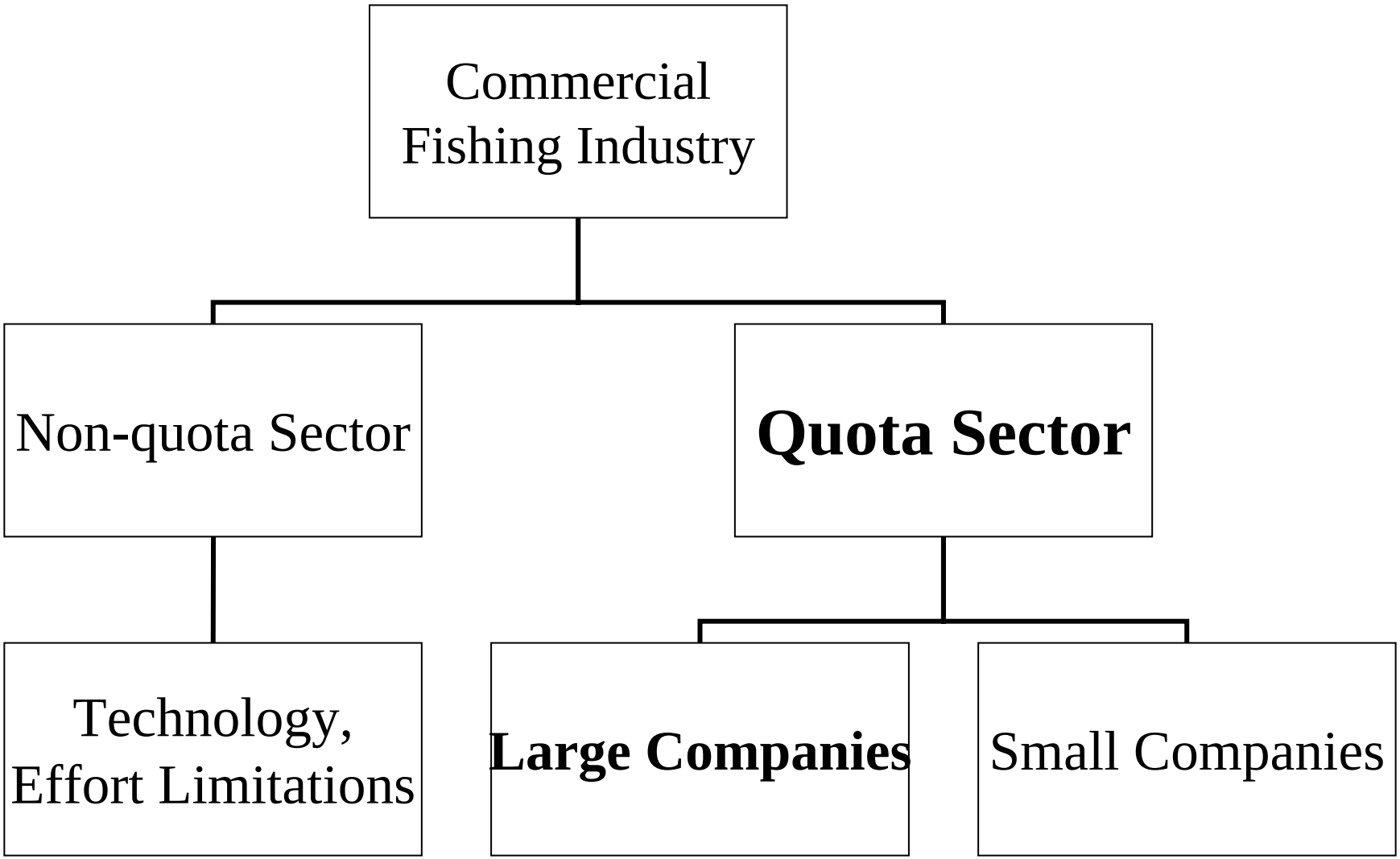
Commercial Fishing Industry

- Industrial exploitation of fisheries c.1900
- 1960's: catches exceed sustainable yields
  - Populations decline
- **Need to limit total harvest to what fishery resources can sustain in the long run**
- Finite resource→ limit fishing→ limit access
  - But how?

Ways to Control Harvesting

- Fishing technology
  - trawling, longlining, minimum net mesh size
  - capital, environmental, and socioeconomic impacts of choice
- Limit access to fishing areas by
  - Closing areas; exclude of foreign fishing vessels
  - Charging fees based on quota, catch, or effort
    - Company-allocated quotas
      - Total Allowable Catch, **TAC**

Commercial Fishing Industry



1996 Quota Distribution in Some Key Fisheries

			% of TAC held by Largest Quota-Holders		
Fishery	**TAC (ton)**	**Quota Holders (#)**	**Top 3**	**Top 10**	**Top 20**
Hake	148 300	49	72	82	87
W Coast Rock Lobster	1 500	104	23	51	73
S Coast Rock Lobster	427	6	82	100 (6 all)	-
Abalone	615	16	75	95	100 (16 all)
Pilchard	105 000	59	30	55	63
Anchovy	70 000	18	36	79	100 (18 all)
Sole	872	11	71	100 (11 all)	-

Source: Sea Fisheries

Problems with Current Quota Sector

- **Annual** allocation of permits by Quota Board
  - allocation viewed as arbitrary, unfair
  - time, money spent on lobby for permits—inefficient
  - uncertainty and insecurity throughout industry
  - overcapitalization: plants, machinery
- No payment appropriate to value acquired
- Current quota systems favors established, healthy fishers
  - Need to restructure industry

Proposed New Access Regime

- current rights holders encouraged to restructure to achieve industry empowerment objectives
- initial allocation of rights would promote firms of different sizes
  - also want to avoid too many firms, which would reduce the State's ability to regulate the industry
- establish auction system to lease rights for shorter term (1-2 seasons)

S. Africa's Ideas for Restructuring

- Commercial sector will pay a fee based on quota, catch, or effort
  - fee will be paid as a royalty or rate
  - clear link between catch and fee—easy to calculate
  - fee will fund fishery management and admin.
- Create **long-term rights** based on % of TAC
  - investment decisions will be based on the long run
    - will correct overcapitalization
  - will allow smaller-scale producers to negotiate fair prices with processors

Proposed Methods of Empowerment

- equity transfers to expand ownership in companies
  - broadens participation
  - allows for economies of scale and skill transfer
  - financing for previously disadvantaged operators
- increase proportion of quotas sold to small-scale operators
  - encourages transition to smaller-scale vessels and more affordable fishing technologies

Methods of Empowerment, cont.

- help small-scale operators improve efficiency
  - education; cooperative extension
- encourage vertical disintegration, mergers, and formal commercial cooperation
  - formation of cooperatives—economics of scale
  - contracts with fish-processing companies

Problems with S. Africa's Plan

- Implementation and enforceability
  - Monitoring fishing levels and bycatch
- Allocation of permits will still have a human element and remain arbitrary and controversial
  - Permit "affirmative action," even with bidding
- Environmental and biological uncertainties
  - Stock levels and annual harvest will always be somewhat uncertain

Other Considerations

- Quotas should be calculated using the marginal value (the value of NOT harvesting) instead of the maximum sustainable yield
  - Impossible to calculate
    - should you err on the side of caution? to what extent?
- Will allowing companies to restructure themselves may make the situation worse?
  - Large companies have minimal incentive to restructure or to help smaller producers
    - possibility of collusion when submitting bids for permits
    - may result in a dominant firm and fringe or monopsony

More Questions

- What incentive do producers have to purchase long term rights when there is still a spec market?
  - What are the implications in terms of price and industry structure?
- Would other mechanisms, like price controls or technological regulations be more effective?
- How many firms are ‘necessary’ to make the industry competitive, rather than an oligopoly?
- What are the tradeoffs (if any) between an equitable, competitive, or sustainable industry?

Take-Home Message

- South Africa has a wealth of marine resources
- Access must be limited to ensure continuation
- Vague goals for empowerment and sustainability won’t accomplish said objectives
- South Africa should rethink its strategy for restructuring its fishing industry to actually achieve sustainable and equitable exploitation

Reference/for more information:
http://www.polity.org.za/html/govdocs/white_papers/marine.html?rebookmark=1