Index

agriculture
  economic contribution of water 180–81
  and economic development 203
  water use 175–6
air pollution, mining industry 46
Alaska Permanent Fund 55
alien invasion, and fynbos yield 91–3
Arnason, R. 143
asset values
  fisheries 128–9
  forest and woodland resources 80–93
  minerals 37–8
  and sustainability 205–7
Atkinson, G. 20, 206
Auty, R.M. 2, 217
Bossi, L. 82
Botswana
  drinking water access 153–4
  economy
    and natural resources 4–6
    and water 179–81
  mineral accounts 32, 35–6
  mineral wealth 46–50
  mining industry 26–31
  environmental damage 44–5
  rainfall 154
  resource rent for minerals 37, 39
  reinvestment 50, 52–5
  socio-economic benefits of water 168
  unaccounted-for water 167, 178–9
  water accounts 175–86
  supply 157–8, 177–8
  use 170–72, 175–7
  wealth 46–50, 208–15
Brundtland Commission Report 1
carbon
  density measurement, forests 83–6
  sequestration valuation 76
  stock accounts 85–6, 88
Christie, S.L. 85
Clemens, M. 206
cost recovery, water 181–4
  see also resource rent recovery costs
  extraction 15
  fish quotas 126–7
  water 161, 170
cultivated plantations (CPLNT)
  carbon stock accounts 85
  physical assets accounts 81–2
Dasgupta, P. 206
De Beers 27, 35, 38
Debswana 27
delivery costs, water 170
depletion of natural capital 18–19
depreciation
  of forest and woodland resources 88–9
  of natural capital 18–19
developing countries, resource-rich,
  economic performance 2–3, 215–17
diamond
  mining 26–7
  prices 38
  reserves, Botswana 35–6
direct use values, forest and woodland resources 75–6
diversity of wealth 207–8
drinking water access, Southern Africa 153–4
Dutch disease 3, 216
eco-efficiency profile, water 168
economic contribution of water, Southern Africa 179–81
efficiency, fisheries 143–5
rent 7
valuation of water 169–70
ecosystem changes, economic effects 3–4
El Serafy rule 19, 50
employment
and economic contribution of water 181
mining industry, Southern Africa 29
and Namibian fisheries policy 144
environmental accounts 1–4
structure of 10–19
and sustainability 205
see also fisheries resource accounts;
forest and woodland resources;
mineral accounts; water accounts
environmental damage from mining,
Southern Africa 44–5
environmental-economic efficiency,
water use 168
equity, and resource rent, Namibian
fisheries 145–6
F&WL see forest and woodland
resources
fish catch, worldwide 111–12
fish stocks
Namibia 128–9
worldwide 112
fisheries 113–16
policy 117–22, 137–49
rent recovery 139–42
resource accounts 122–37
flow accounts, water 161–2
flow benefits, forest and woodland
resources 71–80
foreign financial assets 209
forest and woodland resources (F&WL) 70–93
competing uses 204
depreciation 88–93
monetary accounts 86–9
and national accounts 93–5
physical accounts 81–6
policy implications, South Africa 95–6
France, water accounts 162
fynbos vegetation
impact of alien invasion 91–3
physical assets accounts 82, 84–5
genuine savings, as sustainability
indicator 19–21
gold reserves, South Africa 36
government, and resource management
8, 15–16
groundwater use, Southern Africa 177–8
hake fisheries, economic efficiency
143–5
Hamilton, K. 206, 207
Handbook of the South African Mining
Industry 36
Hartwick, J. M. 205
Hotelling rent 7–8
household water use, Southern Africa 176
Hutton, T. 144
Iceland, fishing industry 142
indirect use values, forest and woodland
resources 76
industry
economic contribution of water 181
water subsidies 184
water use 176–7
intergenerational equity 3
International Commission on South East
Atlantic Fisheries (ICSEAF) 114
Jiwanji, M. 216
land, omission from natural capital
accounts 208–9
Lange, G. 208
leakages see unaccounted-for water
Ljung, E. 143
Low, A. B. 82, 85
Mäler, K.-G. 206
Manning, P. R. 126, 141, 144, 145
manufacturing see industry
McKelvey Box system 34
Mikesell, R. 2
Milazzo, M. 112
mineral accounts 32–50
policy implications 50–57
mineral property rights 29–31
mineral wealth 34–6, 46–50, 211–13
mining industry 25–31
environmental impact 44–6
wages 44
water use 176, 181
see also mineral accounts
Moll, E.J. 82
monetary asset accounts 12–16
fisheries 124–30, 133–5
minerals 37–8, 39–50
water 167–70, 179–84
policy implications 186
forest and woodlands 86–9
monopoly rent 7
Namdeb 26, 36
Namibia economy
and fisheries 115
and natural resources 4–6
and water 180–81
environmental damage from mining 45
fisheries see fisheries
mineral accounts 36–50
mining industry 26–31
rainfall 154
resource rent for minerals 37, 39
reinvestment 56–7
water accounts 175–86
water supply 158–9, 177–8, 185
water use 172–3, 175–7
wealth 208–14
Namibianization of fishing industry 115–16, 120–22
incentives 140–42, 148–9
Namwater 158, 159, 183
national accounts
contribution of forest and woodland resources 93–5
as source of fisheries data 125–6, 127–8
national wealth, and natural capital 207–15
natural forest and woodlands (NFWDLN)
carbon stock accounts 86
physical assets accounts, South Africa 82
natural resource accounts see environmental accounts
natural resources
economic dependence on 4–6
role in development 203–5
see also fisheries; forest and woodland resources; mineral wealth
net present value method (NPV) 13–16
net price method (NPM) 13
forest asset valuation 86–8
NFWDLN see natural forest and woodlands
Nieuwoudt, W.L. 143
Nordhaus, W.D. 88
Norway, fisheries policy 142, 144
opportunity cost, water 169
Our Common Future 1
Pearce, D. 17, 20, 206
per capita wealth 214–15
Pezzey, J. 19
Philippines, fishing industry 142
physical asset accounts 12–13
fisheries 123–4, 1301–3
forest and woodland resources 81–6
minerals 34–6, 39
water 163–7, 175–9
policy implications 185–6
pollination valuation, South Africa 76, 77–8
population growth, and wealth 207
Prebisch–Singer hypothesis 204
prices see costs
private value of rent 15
Namibian fisheries 135–7
quota prices, fish 126–7
quota system, Namibian fisheries 118–21
rainfall, Southern Africa 154–5
Rebelo, A.G. 82, 85
recovery of resource rent 9–10
fisheries 139–42
mining 50–55, 56
renewable resource valuation 15
rent see resource rent
resource abundance, and economic
development 2–3, 215–17
resource curse 2–3
resource depletion, Namibia 209–10
resource rent 6–8
calculation 13–16
fisheries 125–9
fisheries 133–7, 143–6
management 8–10
minerals, Southern Africa 37–44
recovery 9–10
mining 50–55, 56
Namibian fishing industry 139–42
and equity, Namibian fisheries 145–6
resource scarcity rent 7
Ricardian rent 7
riparian rights, South Africa 160
Sarraf, M. 216
SBI (Sustainable Budget Index), Botswana 52–5
Scholes, R.J. 85
SEEa (System of Environmental and Economic Accounts) 2, 10–11
SNA see System of National Accounts
social discount rate 17–18
social value of rent 15
Namibian fisheries 135–7
socio-economic benefits of water 167–9
Solow, R.M. 205
South Africa
economy
and forest resources 93–5
and natural resources 4–6
and water 179–81
environmental damage from mining 45–6
fisheries 143, 144
forest and woodland resources 71–96
mineral accounts 32, 36–7
mineral wealth 46–50
mining industry 25–6, 27–31
rainfall 154–5
resource rent for minerals 37
reinvestment 56–7
water accounts 175–84
water supply 159–61, 178
water use 173–4, 175–7
South African Mining Industry,
Handbook of the 36
Steenkamp, P. 148
Sternhufvud, C. 143
stock accounts, water 161
stock levels, fish 112, 128–9
Strydom, M.B. 143
subsidies
Namibian fishing industry 140–42, 148–9
water, Southern Africa 181–4
Sumaila, R. 144
surface mining, environmental impact 46
sustainability 205–7
indicators 19–21
Sustainable Budget Index, Botswana 52–5
System of Environmental and Economic Accounts 2, 10–11
System of National Accounts 1
inadequacy for forest resources 70–71
TAC (total allowable catch), Namibia 117
taxes on resource rent see resource rent recovery
timber
assets valuation 86–8
biomass measurement 83
stock accounts, South Africa 81–5
total allowable catch, Namibia 117
total national wealth 207–15
trading prices, fish quotas 126–7
Ulph, D. 17
unaccounted-for water 166–7, 178–9, 186
user cost rule 50
Uulenga, A. 128, 136
valuation of assets 12–16
water 169–70
see also monetary asset accounts;
physical asset accounts
wages, mining 44
water abstraction valuation, forests 76, 78–9
water accounts 161–84
  monetary 167–70, 179–84
  physical 163–7, 175–9
water flow accounts 161–2
water loss, fynbos 92–3
water policy
  Botswana 157–8
  Namibia 158–9
  South Africa 159–61
water pollution, mining industry 45–6
water stock accounts 161
water supply
  Botswana 157–8
  Southern Africa 177–8
wealth, welfare and sustainability 205–7
Wiium, V. 128, 135–6
World Development Indicators 20
Wright, M. 53