Benefit-sharing in dam projects on shared rivers

Oliver Hensengerth
Ines Dombrowsky
Waltina Scheumann

Bonn 2012
Contents

Abbreviations

Introduction 1

1 Conceptualizing benefit-sharing on dams on international rivers 3
  1.2 Benefits and external effects associated with dams 5
  1.3 Hydro-political constellations and incentive structures for negotiations on
    sharing the benefits of dams 6
  1.4 Negotiating benefit-sharing mechanisms 9

2 Case studies 11
  2.1 Dams on the River Senegal; overcoming financial constraints of
      unilateral action 11
  2.2 Dams on the Columbia River: altered dam design increases aggregate net
      benefits 15
  2.3 Lesotho Highlands Water Project on the River Senqu-Orange: locating the
      project upstream increases aggregate net benefits 18
  2.4 Aswan High Dam (Egypt, Sudan) on the River Nile: compensating for
      negative externalities upstream 21
  2.5 Kariba Dam on the River Zambezi (Zambia, Zimbabwe) and notes on the
      Itaipu Dam on the Río Paraná (Brazil, Paraguay): symmetrical benefits of
      a dam on a border river 23
  2.6 Summary of the cases 25

3 Factors influencing benefit-sharing 26
  3.1 Political and institutional factors 26
    3.1.1 Foreign policies of relevant basin states 27
    3.1.2 A history of cooperation between basin states and of institutionalized
      cooperation in the basin 27
    3.1.3 The nature of domestic administrative systems and power structures 28
    3.1.4 National water policies and preferences 28
    3.1.5 Third parties 29
    3.1.6 Regional initiatives 29
    3.1.7 Power relations between riparian states 29
  3.2 Processes: application of benefit-sharing during or after dam-building
      negotiations 30
  3.3 Net benefits: full accounting of social and environmental costs 30

4 Conclusions and recommendations for development cooperation 32

Bibliography 35