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## IAPB Briefing Paper

# The Positive Economics of Blindness Prevention



International Agency for the  
Prevention of Blindness



The purpose of IAPB Briefing Papers is to inform member organisations and others about important and emerging issues affecting VISION 2020: The Right to Sight.



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**Eye care programmes to reduce avoidable blindness have proved to be highly successful and cost effective**

## Introduction

Blindness has a negative effect on productivity and represents a significant public cost to governments, both directly in terms of medical and related expenses and indirectly through lost productivity and missed income earning opportunities.

- The annual global economic impact of blindness and low vision due to lost economic productivity was estimated at US\$ 42 billion in 2000 alone. This equates to about 14% of the Gross National Income of Sub Saharan Africa for that year.
- In the UK alone, lost economic productivity due to partial sight and blindness was estimated at £ 1.7 billion in 2008. The direct health care system costs were estimated at £2.14 billion. The overall total, including other indirect costs and burden of disease costs (years of life lost due to morbidity and premature death) for the UK in 2008 is a massive £ 22 billion. This represents about 0.7 % of GNI.
- In India, it is estimated (1997) that the annual loss of GNP due to blindness is US\$4.4bn, 1.4% of GNP.

At household level, income levels fall when a wage-earner becomes visually impaired and may have to stop working or when it is necessary for a sighted family-member, who would otherwise be contributing to family income, to remain at home in a caring role. Where the carer is a child who forgoes school, the negative consequences are long-term and can be intergenerational.

## **Investment in programmes to combat avoidable blindness invariably achieve very high rates of return.**

- A programme in the Gambia during 1986-96 secured a 40% reduction in the overall prevalence of blindness, and, in terms of increased productivity, achieved a 10% economic rate of return.
- An ongoing programme to address onchocerciasis (river blindness) is estimated to have resulted in an economic rate of return of 20%, in terms of production .
- A World Bank supported project in India to address cataract related blindness is estimated to have generated an annual economic gain of US\$ 1.1bn at an investment cost of \$0.15bn, a remarkably high rate of return .
- Cost-effective interventions are available for the major causes of avoidable blindness:
  - The cost of treating river-blindness is less than \$1 per person per year.
  - WHO recognises that cataract surgery is one of the most cost-effective treatments that can be offered in developing countries. It can allow people to increase their economic productivity by up to 1,500% of the cost of the surgery during the first post-operative year.

## **Fortunately, eye care programmes to reduce avoidable blindness can be very successful:**

- In Pakistan, the national prevalence of blindness was halved over a 15 year period (1989-2004) due commitment by government and non-government actors to improving the provision of eye services. Increased resource allocations for eye care 2005-2010 demonstrate the government's recognition of the benefits.
- The Gambia National Eye Care Programme reduced the national prevalence of blindness by 40% (from 0.7% to 0.42%) over a 10 year period, despite a 51% population increase. It is estimated that an economic rate of return of 19% was achieved.
- Research in three developing countries indicate improved productivity and purchasing power of people following sight-restoring cataract surgery.

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**VISION 2020: The Right to Sight is the joint global initiative of IAPB and the World Health Organization for the elimination of avoidable blindness**