

# Climate Change and Children: A Human Security Challenge

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# **1. Climate change, human security and the world's children**

# 1.1 Human security and climate change

- Human security is complementary to national security. It is a unifying concept that bridges notions of security at all levels, from the individual/local to the national and global
- Human security offers a valuable lens through which to examine the impacts of climate change on children, and to integrate the climate change and development agendas

## 1.2 Climate change in developing countries

- Developing countries will be worst hit by changes in rainfall patterns, greater weather extremes and increasing droughts and floods (IPCC, 2007).
- The achievement of MDG's is critically important for both, the lives of children today and the world we leave to future generations

## 1.3 IPCC Assumptions of climate change, 2007

| Risks                   | Impacts   |
|-------------------------|---|
| Sudden-onset disasters  | <ul style="list-style-type: none"><li>• Destroy familiar surroundings</li><li>• Undernutrition, disease, injuries</li></ul> |
| Gradual systemic change | <ul style="list-style-type: none"><li>• Worsen situation of the most marginalized children.</li></ul>                       |

## 1.4 Why Children? (I)

- Over 1.2 billion people in the world are 9 year old or younger.
- Over 1.2 billion people are between 10 and 19 years old.
- About 85% of the world's youth live in developing countries.
- About 87% live in countries affected by poverty, hunger, disease and violence.

## Why Children? II

- As a group the vulnerability and experience of children comprise a crucial component of human security
- Many of the main killers of children are highly sensitive to climatic conditions
- Children are more susceptible to adverse effects of environmental degradation
- Experiences of children today set the stage for human security in the future

## 1.5 Children as researchers and as agents of change

- They can be extraordinarily resilient
- They can be valuable agents for social change, economic development and technological innovation
- They are better on touch with their physical environment
- They can be engage through participatory approaches to community research and development



## 1.6 Complexity and Integration

- Impoverished populations without access to clean energy
- The rural-urban divide
- Age and Gender
- International and Intergenerational justice

## **2. Impacts of climate change on children**

## 2.2 Key climate changes

- **Rising sea levels and shrinking glaciers**
- **Heavy precipitation, flooding and water security**
- **Rising temperatures, droughts and desertification**
- **Extreme weather events**
- **Deforestation**
- **Biodiversity**

## 2.3 Implications of climate change

| Climate changes   | Impacts   |   |
|---|---|---|
|   | Health and well being   | Social and economic   |
| <ul style="list-style-type: none"> <li>■ Rising sea levels and shrinking glaciers</li> <li>■ Heavy precipitation, flooding and water security</li> <li>■ Rising temperatures, droughts and desertification</li> <li>■ Extreme weather events</li> </ul> | <ul style="list-style-type: none"> <li>-Food security and undernutrition</li> <li>-Water security, diarrhoea and other waterborne diseases</li> <li>-Malaria and other vector-borne diseases</li> <li>-Death and illnesses from use of biomass fuels indoors</li> </ul> | <ul style="list-style-type: none"> <li>-Decline in children access to education</li> <li>-Displacement and migration of families, trafficking and maltreatment</li> <li>-Increase poverty rates</li> <li>- Loss of livelihoods for millions of families and thus rise of child mortality rates</li> </ul> |

## **2.3.1 Implications for child health and well-being**

- **Food security and undernutrition**
- **Water security, diarrhoea and other waterborne diseases**
- **Malaria and other vector-borne diseases**
- **Death and illnesses from use of biomass fuels indoors**

## 2.3.2 Food security and undernutrition

- Undernutrition is the underlying cause of 3.5 millions death annually, and more than one-third of deaths in children under five years of age
- Food production could decline by as much as 50% by 2020 due to droughts, floods and diversion of grains for biofuel

## 2.3.3 Water security, diarrhoea and other waterborne diseases

- Diarrhoeal disease cause almost 2 million deaths a year, of which are mostly young children.
- As the temperatures rise, the replication of the pathogens that water carries (protozoa, bacteria and viruses) will also increase.

## 2.3.4 Malaria and other vector-borne diseases

- Malaria causes more than a million deaths each year, up to 80% of which are amongst children under five
- With increasing temperatures malaria is returning to places where it was once eradicated



## 2.3.5 Death and illnesses from use of biomass fuels indoors

- It is estimated that 2.1 million children under five die from acute respiratory illnesses.
- Increase in burning fossil fuels drop air quality in rural and urban areas.

## 2.4 Impacts from the breakdown of economic and social structures

### Social

- Decline in children access to education
- Displacement and migration of families, trafficking and maltreatment

### Economic

- A climate driven reduction in GDP would increase poverty rates
- Loss of livelihoods for millions of families and thus rise of child mortality rates

## **3.The bases for action: Rights, institutions and guiding principles**

- I. The 1972 Conference on the Human Environment Declaration
- II. Convention on the Rights of the Child
- III. The Aarhus Convention
- IV. Art 6 Convention on Climate Change
- V. Hyogo Framework for Action
- VI. The Millennium Development Goals
- VII. Partnerships with faith-based organizations
- VIII. Partnerships with youth organizations

# I. Agenda 21 and the Rio Conventions

- Adopted by more than 178 governments in 1992
- Principle 10 “environmental issues are best handled with participation of all concerned citizens, at the relevant level”

# II. Convention on the Rights of the Child (CRC)

## **Pertinents articles**

- **Art 2. Protection of children from any form of discrimination**
- **Art 3. The best interest of the child**
- **Art 6. Promotion of the child right to life, survival and development**
- **Art 12. Respects of the view of the child**
- **Art 24, 2(c) adequate nutritious foods and clean drinking water**
- **Art 24, 2(e) Access to educ. health & nutrition**

## **Measures of implementation**

- **Development of an effective legal system**
- **Independent child rights institutions**
- **Strategic national agendas**
- **Effective governmental coord.**
- **Allocation of resources**
- **Monitoring tools**
- **Educ., Information & awareness raising**
- **Involvement of civil soc.**

## III. The Aarhus Convention

On access to Information, public participation and access to justice in environmental matters

Messages:

- Easy access to information
- Encourage civic participation among the youth

## IV. Article 6 of the UNFCCC

Adressess:

Education, training, public awareness, public participation and access to information in relation to climate change

# VI. The Millennium Development Goals (MDG's)

| Millennium Development Goal                             | Climate change link   | Adaptation solutions related to children   |
|---|---|--|
| <p>Goal 1:<br/>Eradicate extreme poverty and hunger</p> | <ul style="list-style-type: none"> <li>•Climate change is projected to reduce poor people's livelihood assets, for example, health, access to water, homes, and infrastructure</li> <li>•Climate change is expected to alter the path and rate of economic growth due to changes in natural systems and resources, infrastructure, and labor productivity. A reduction in economic growth directly impacts poverty through reduced income opportunities.</li> <li>•In particular in Africa, food security is expected to worsen.</li> </ul> | <ul style="list-style-type: none"> <li>•Promote alternative livelihood and small-scale entrepreneurship</li> <li>•Vocational training for out-of-school youth and women, related to renewable energy technologies, rainwater catchments, groundwater recharge, small-scale irrigation environmental cleanup/repairation</li> <li>•Community projects such as canal excavation, reducing water logging, raising of embankments</li> </ul> |



# The Millennium Development Goals (MDG's)

|   |  |  |
|---|--|--|
| <p><b>Goal 2:</b><br/>Achieve universal primary education</p>       | <ul style="list-style-type: none"><li>•Loss of livelihood assets may reduce opportunities for full-time education. Natural disasters reduce children's available time, while displacement and migration can reduce access to education.</li></ul>  | <ul style="list-style-type: none"><li>•Environmental education</li><li>•Youth-led community mapping of risks and disaster preparedness</li><li>•School-based early warning</li><li>•Awareness and advocacy</li><li>•School gardening programs initiated to support nutrition</li></ul> |
| <p><b>Goal 3:</b><br/>Promote gender equality and empower women</p> | <ul style="list-style-type: none"><li>•Depletion of natural resources and agricultural productivity may place additional burdens on women' health and reduce time to participate in decision-making and income-generating activities.</li><li>•Climate related disasters impact more severely on female-headed households.</li></ul> | <ul style="list-style-type: none"><li>•Local community-based water management programs</li><li>•Community gardens</li><li>•Disaster preparedness and risk reduction</li><li>•Community action to eliminate conflict-inducing environments</li></ul>                                    |

# The Millennium Development Goals (MDG's)

|  |   |   |
|--|---|---|
| <p>Goal 4:<br/>Reduce child mortality</p>  | <ul style="list-style-type: none"><li>•Direct effects of climate change include increases in heat-related mortality and illness associated with heat waves</li><li>•Climate change will likely result in declining quantity and quality of drinking water, which is a prerequisite for good health, and exacerbate undernutrition</li></ul> | <ul style="list-style-type: none"><li>•Access to health services</li><li>•Household water treatment and Oral Rehydration Salts (ORS)</li><li>•Improved access to sanitation and hygiene education</li></ul> |
| <p>Goal 5:<br/>Improve maternal health</p> | <ul style="list-style-type: none"><li>•Children and pregnant women are particularly susceptible to vector and waterborne diseases</li></ul>   | <ul style="list-style-type: none"><li>•Strengthening of health services and distribution of malaria pills through schools</li></ul>   |

# The Millennium Development Goals (MDG's)

|  |   |   |
|--|---|---|
| <p>Goal 6:<br/>Combat HIV/AIDS,<br/>malaria and other<br/>diseases</p> | <ul style="list-style-type: none"><li>•Climate change may increase the prevalence of some vector-borne diseases and vulnerability to water, food, or person-to-person borne</li></ul>   | <ul style="list-style-type: none"><li>•Increased vector control and response to waterborne diseases</li><li>•Provision of bednets</li><li>•Cleaning of stagnant water</li></ul>   |
| <p>Goal 7: Ensure<br/>environmental<br/>sustainability</p>             | <ul style="list-style-type: none"><li>•Climate change will alter the quality and productivity of natural resources and ecosystems, some of which may be irreversibly damaged, and these changes may also decrease biological diversity and compound existing environmental degradation.</li></ul> | <ul style="list-style-type: none"><li>•Increased access to water and sanitation</li><li>•Tree-planting campaigns</li><li>•School and community gardens</li><li>•Mapping of water sources and sanitation promotion</li><li>•Demand-led approaches to school WASH</li></ul> |

# The Millennium Development Goals (MDG's)

|   |   |   |
|---|---|---|
| <p>Goal 8:<br/>Develop a global partnership for development</p> | <ul style="list-style-type: none"><li>•Global climate change is a global issue and response requires global cooperation, especially to help developing countries to adapt to the adverse impacts of climate change.</li></ul> | <ul style="list-style-type: none"><li>•Better information exchange between governments and NGOs</li><li>•Building civil society alliances</li><li>•Initiating discussions on CRC and climate change at all levels</li></ul> |
|---|---|---|

## **4. Adaptation and mitigation: complementary strategies**

## 4.2 Key adaptation interventions to reduce human security risks to children

- I. Household water supply, sanitation and hygiene (WASH)
- II. Groundwater recharge and watershed remediation
- III. Disaster risk reduction and preparedness
- IV. Environmental protection and restoration
- V. Renewable energy solutions
- VI. Health-related interventions
- VII. Community capacity building
- VIII. Social protection and psycho-social support

## 4.3 Adaptation activities involving children and young people

| Activities   | Location  |
|--|---|
| <ul style="list-style-type: none"> <li>• Life skills-based intersectoral environmental education</li> <li>• relating the child's local environment to her/his life in the context of the education curriculum, including science, mathematics literacy and health</li> <li>• community outreach activities led by youth clubs</li> </ul> | <ul style="list-style-type: none"> <li>• in schools and communities</li> </ul>    |
| <p>Disaster risk reduction and preparedness</p> <ul style="list-style-type: none"> <li>• risk mapping of communities led by youth clubs</li> <li>• tree planting and erosion control activities</li> <li>• preparedness, evacuation</li> </ul>   | <ul style="list-style-type: none"> <li>• in schools and communities</li> </ul>    |
| <p>Vocational training in trades to address environmental degradation to address youth unemployment</p> <ul style="list-style-type: none"> <li>• to reach out of school youth</li> <li>• to improve access to water</li> <li>• to improve access to energy</li> <li>• ie: forestry, masonry, health care</li> </ul>                      | <ul style="list-style-type: none"> <li>• in community centres, schools</li> </ul> |

# Adaptation activities involving children and young people

|  |  |
|--|--|
| <p>Promotion of alternative energy for electrification of rural schools and health centres</p> <ul style="list-style-type: none"> <li>• Working with GEF, CDM, PEI and others</li> </ul>                                     | <ul style="list-style-type: none"> <li>• in schools, health centres</li> </ul>                               |
| <p>Water source and micro-watershed protection/remediation</p> <ul style="list-style-type: none"> <li>• river clean-up campaigns</li> <li>• monitoring and maintenance of water points</li> <li>• fencing/hedging</li> </ul> | <ul style="list-style-type: none"> <li>• in schools, households, communities and micro-catchments</li> </ul> |
| <p>Alternative water source development</p> <ul style="list-style-type: none"> <li>• rooftop rainwater harvesting</li> <li>• unoff collection (micro-dams, sub-surface dams, pond construction)</li> </ul>                   | <ul style="list-style-type: none"> <li>• in schools, households and micro-catchments</li> </ul>              |
| <p>Alternative energy for water lifting</p> <ul style="list-style-type: none"> <li>• solar pumping (where handpumps not appropriate)</li> <li>• wind pumping (as above)</li> </ul>   | <ul style="list-style-type: none"> <li>• mainly in schools</li> </ul>  |



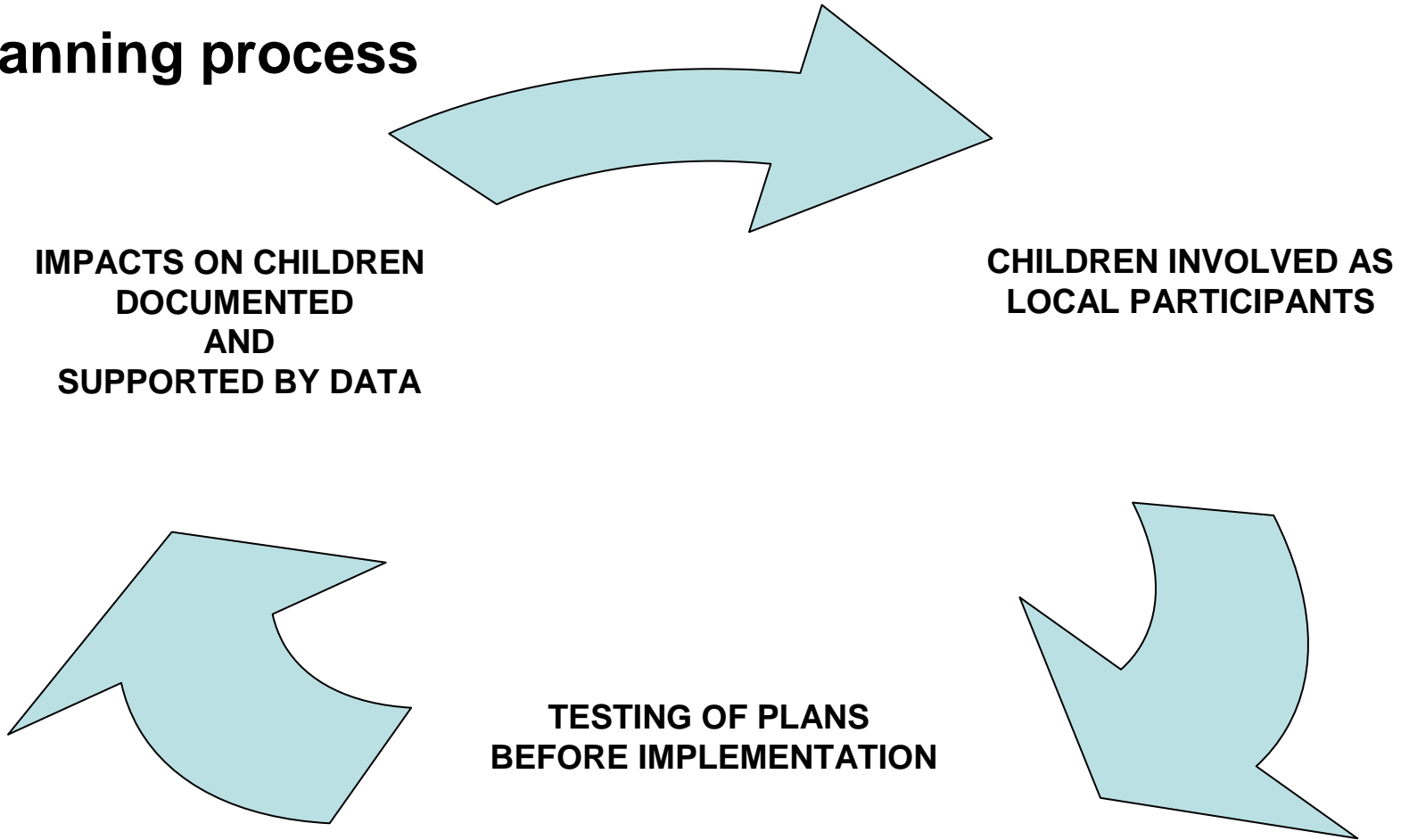
# 4.4 Needs of children in local adaptation strategies

## Planning process

**IMPACTS ON CHILDREN  
DOCUMENTED  
AND  
SUPPORTED BY DATA**

**CHILDREN INVOLVED AS  
LOCAL PARTICIPANTS**

**TESTING OF PLANS  
BEFORE IMPLEMENTATION**

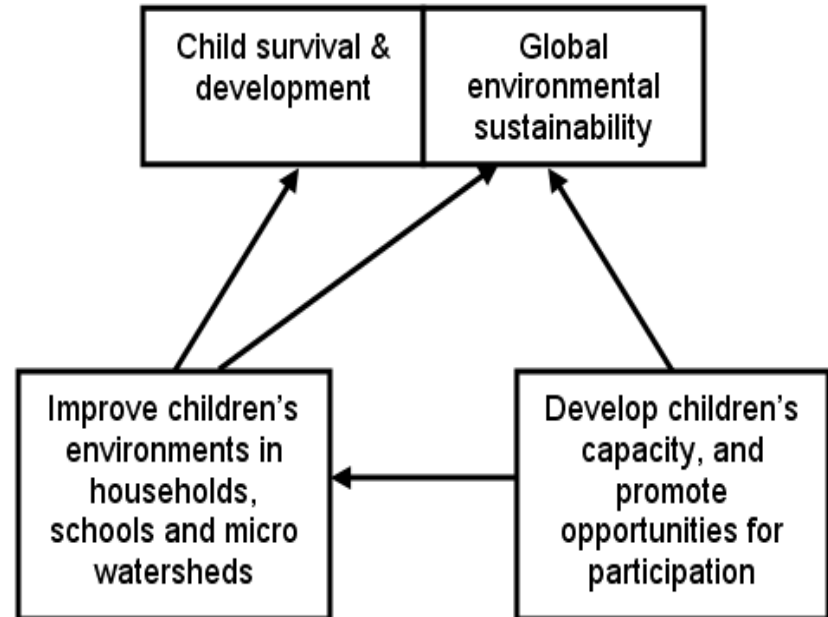


# 4.5 Community development

## Participatory approach:

- **Economic opportunity**
- **Vulnerability reduction**
- **Empower the most marginalized**

- **Environmental education**



# 4.5.1 Nairobi Work Programme

## Goal

Help countries to improve their understanding of CC impacts and vulnerability and how to adapt successfully.

Children can be included in the development of responses in four areas:

1. Methods, tools used for impact, vulnerability and adaptation assessment
2. Climate related risks and extreme events
3. Socio-economic information
4. Adaptation planning and practices

## 4.6 Frameworks for action (I)

| FRAMEWORK  | ACTIONS  |
|--|--|
| National Adaptation Programmes of Action (NAPAs) | <ul style="list-style-type: none"> <li>• identification of priority activities that respond to immediate needs and concerns for adaptation to climate change</li> <li>• grassroots strategies, use of relevant traditional knowledge and practice</li> </ul>   |
| The Hyogo Frameworks 2005-2015                   | <ul style="list-style-type: none"> <li>• Disasters affect everyone and are everybody's business</li> <li>• Action Priorities for disasters               <ul style="list-style-type: none"> <li>- strong institutional basis for implementation.</li> <li>- Identify, assess and monitor and enhance early warning.</li> <li>- Use knowledge, innovation and education to build resilience</li> <li>- Reduce the underlying risk factors.</li> <li>- Strengthen disaster preparedness</li> </ul> </li> </ul> |
| Roll Back Malaria                                | encourage regional and inter-sectoral collaboration, both public and private, at all levels, especially in education, agriculture, economic development and the environment to advance malaria control objectives  |

# Frameworks for action (II)

| FRAMEWORKS                                   | ACTIONS  |
|--|--|
| Sub-national and municipal frameworks        | <ul style="list-style-type: none"><li>•Child Friendly City Initiatives (CFCIs)</li><li>• Strength the links between CC concerns and CFCIs to strength local capacity, adaptation &amp; preparedness.</li></ul>           |
| Local adaptation strategies and local action | <ul style="list-style-type: none"><li>•Reducing vulnerability and increasing local capacity</li><li>•Improving infrastructures</li><li>•Increasing awareness</li><li>•Strengthening organizational cooperation</li></ul> |

## **5. Implications and Conclusions**

## 5.1 Implications

1. Centrality of children to the discussion of climate change and to human security
2. Children's issues are not yet well recognized or incorporated in environmental agendas
3. Children are key agents for social change
4. Climate change is inextricably linked to the broader sustainable development agenda for children, poverty reduction and the MDGs
5. Lack of accurate age-specific data on children
6. Much of the health risk posed by climate change is avoidable or curable

## 5.2 Conclusions (I)

1. A human rights-based approach necessitates inclusion of children's issues
2. Need to integrate the children's agenda into relevant inter-governmental processes
3. NAPAs and other regional and municipal adaptation plans should incorporate a children's dimension
4. Many opportunities exist for the international community to generate support for community empowerment, shared learning between countries and communities and field activities designed for results.



## 5.2 Conclusions (II)

5. Support is needed for improved energy efficiency and conservation and increased access to clean household energy
6. Partnerships are key
7. Need for donor support for the local actions of children and young people
8. Investment in infrastructure is essential
9. Further approaches to research on climate change and children should be explored

THANK YOU.

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