Sports Equipment and Technology in Developing Nations: Grass root initiatives to enhance parasports in Kenya

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Sports equipment and technology

- An issue for developing countries

- Restrict participation and performance in disability sports.
Most athletes from developing nations compete in sports that do not require sophisticated equipment.
### AFRICA AT LONDON 2012

<table>
<thead>
<tr>
<th>Region</th>
<th>NPC</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>41</td>
<td>307 (222m,85f)</td>
<td>7.2</td>
</tr>
<tr>
<td>America</td>
<td>28</td>
<td>803</td>
<td>19</td>
</tr>
<tr>
<td>Asia</td>
<td>41</td>
<td>854</td>
<td>20.2</td>
</tr>
<tr>
<td>Europe</td>
<td>47</td>
<td>2085</td>
<td>49.2</td>
</tr>
<tr>
<td>Oceania</td>
<td>8</td>
<td>188</td>
<td>4.4</td>
</tr>
<tr>
<td>Total</td>
<td>164</td>
<td>4237</td>
<td>100</td>
</tr>
</tbody>
</table>

Very few athletes qualifying from each African NPC.
Very few countries from Africa participated in sports requiring use of prosthesis, wheelchair or bicycle.

<table>
<thead>
<tr>
<th>Africa</th>
<th>NPC</th>
<th>medal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheelchair</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Prosthesis Track</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>Wheelchair Field (Club throw)</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Wheelchair Field (Discuss) javelin</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Wheelchair Field (shot putt)</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Wheelchair tennis</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Bicycle</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>
Challenges

Lack of facilities or limited access to existing facilities is often problematic in developing countries.
Paraports equipment cited as a major hindrance to sports participation by individuals. Importing equipment expensive.
Reliance on donated equipment that sometimes not serviceable
Lack of appropriate equipment continues to limit the number of sports that athletes participate in.
Crutches made from wood used for mobility and sports such as amputee football
When they compete with those using technogically advanced equipment, they are always disadvantaged.
As technology and assistive devices continue to advance:
- widening gap between developed and developing nations in performance of athletes
A Kenyan runner passes water to a dehydrated Chinese runner
http://t.co/FGIacY9dLo

Missed US$10,000 cash prize
Grass root initiatives
Introducing Wheelchair Tennis at Kenyatta University
Coach conversion
Multiple use of equipment
2011

- International competition
- Variety of wheelchairs from different countries - donated
- Also a training moment for all players
- Only standard court -private
Adaptation
Capacity Building workshops

Working with others to enhance capacity among coaches and sports managers
Research Initiatives

- Support from IPC through the Sports Science Committee
  - Workshops
  - Student supervision
Association for persons with physical disabilities of Kenya

- Established in the 70s as a nongovernmental organization
- Makes wheelchairs, tricycles and other assistive devices for mobility for the East African region
From 2009 in partnership with CBM and Stanchart Bank
Empowers PWD to participate in the annual Stanchart Marathon
## Standard Chartered Nairobi Marathon Participants and Gender distribution

### 2012 Gender distribution

<table>
<thead>
<tr>
<th>Category</th>
<th>Male</th>
<th>Female</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tricycles</td>
<td>62</td>
<td>12</td>
<td>74</td>
</tr>
<tr>
<td>Wheel Chair</td>
<td>10</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>Totals</td>
<td>72</td>
<td>17</td>
<td>89</td>
</tr>
</tbody>
</table>
Prototype equipment

Motivation

APDK
What next

- Need for partnership in enhancing local efforts
  - Share technology
  - Skill development
  - Joint research on possibilities
  - Donations not a lasting solution
Welcome to Kenya

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