Tobacco Problems in Sudan

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The Global Picture

- 1.3 billion tobacco users.
- 80 % in developing countries.
- 5 Million people die annually, more than 10 mill. In the year 2030.
- Each year 1.2 mill. new lung cancer cases are diagnosed.
- More than 700 mill. Children are exposed to second hand smoke.
- Tobacco causes 30 % of cancers.
The Prevalence of Tobacco use in Sudanese adults, n = 60932

<table>
<thead>
<tr>
<th>Residence</th>
<th>Smokers</th>
<th>Toombak</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
</tr>
<tr>
<td>North</td>
<td>19.7</td>
<td>0.9</td>
</tr>
<tr>
<td>East</td>
<td>18.0</td>
<td>1.1</td>
</tr>
<tr>
<td>Khartoum</td>
<td>28.6</td>
<td>1.8</td>
</tr>
</tbody>
</table>
In Sudan:

- 6 -- 8 millions Toombak users, 20 -- 24%.

- 3 -- 3.5 millions Smokers, 12%.

- There is no cessation clinics.

Quitting rates in Adults:

- Smokers:
  - Males 2.6%  Females 0.2%

- Toombak Users:
  - Males 2.6%  Females 0.3%
Tobacco Causes 30% of all Cancers

- Quiting at any stage reduces the Risk.
- Passive Smoking also Causes Cancer.
- Shisha contains more tobacco than Cigarettes.
Tobacco:

- By 2020 it's predicted that Tobacco will cause more deaths, worldwide than HIV, maternal death, motor vehicle accidents, suicide and homicide, combined.

- WHO, UICC data.
Tobacco and Cancer:

- Tobacco causes:

- Ca of the lung, lip, oral cavity, pharynx, larynx, oesophagus, pancreas, trachea, bladder, kidney and CML.

- WHO, IARC data.
Toombak:

- Nicotina Rustica.
- Contains high levels of TSNA:
  - NNN = 1.31 mg/gm.
  - NAB = 0.22
  - NAT = 0.08
- And traces of benzopyrenes, aldehyde lactones and polonium 21.
- Idris et al, 1991
Toombak:

- Contains unusually high levels of TSNA.
- Highly addictive.
- Very low quit rate.
- High risk of Oral precancers and cancers
- Plays an important role in the economy.
TSNA in the Saliva of Snuff and Toombak Dippers:

<table>
<thead>
<tr>
<th>Product</th>
<th>NNN</th>
<th>NNK</th>
<th>NAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>5-420</td>
<td>2-2.01</td>
<td>7-470</td>
</tr>
<tr>
<td>Sweden</td>
<td>3-140</td>
<td>ng –16</td>
<td>4 –85</td>
</tr>
<tr>
<td>Sudan</td>
<td>582-21000</td>
<td>63-6690</td>
<td>nd-471</td>
</tr>
</tbody>
</table>
Nicotine and TSNA In Snuff and Toombak:

<table>
<thead>
<tr>
<th>Sample</th>
<th>Nicotine</th>
<th>NNN</th>
<th>NNK</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>17.1-23.4</td>
<td>6.4-26.5</td>
<td>0.5-4.7</td>
</tr>
<tr>
<td>Sweden</td>
<td>12.4-15.1</td>
<td>5.7-7.8</td>
<td>1.0-2.</td>
</tr>
<tr>
<td>Sudan</td>
<td>32.2-102.4</td>
<td>830-3080</td>
<td>630-787</td>
</tr>
<tr>
<td>Sudan</td>
<td></td>
<td>241-369</td>
<td>188-362</td>
</tr>
</tbody>
</table>
Oral Cancers:

- 82% of Oral Cancers in Sudan are due to Toombak use.

- Idris et al., 1995....Elbesheir et al. 1980
Snuff Dipping and Oral cancers in Sudan:

- A retrospective study of 78 cases of Oral Cancers:
- 81% used snuff for 10 – 45 years, mean 30 years.
- 82% for more than 20 years.
- Carcinomas usually develop at the site of Snuff dipping.

Quit and Win 2002:

- Number of Participants 5531
- Tobacco Use:
  - Smoked only 55.7%
  - Toombak only 23.6
  - Both 20.8%
- Age:
  - 18 – 30 Years: 37.1%
  - 31 – 51: 44.1
  - 51 – 60: 11.2
  - 61 – 84: 4.3
  - Not Stated: 3.3
Tobacco and Children:

- If young people don’t begin to use tobacco before the age of 20, they are unlikely to initiate use as adults.

- Teen Smoking in some Latin American Cities is 50%. In Sudan 21%.

- 40% in Kenyan primary schools.
Youth Survey 2001:

- A study of 2783 Students.
- 8th class of Primary schools, first and second class of High sec. Schools.
- Age 13 – 15 years.
- Sex: Females 51%, Males 49%.
Youth Survey:

- Primary school 20%.

- First Class Sec. School 35%, Second 25%.
Results of The youth Survey:

- 20.1% used Cigarettes, at least once.
- Age: 12 21.1%, 13 11.7%, 14 19.4%, 15 26.7%
Results:

- Used Toombak and or Shisha:
  - MALES 20.5%, Fem. 11.8%.
- Used both Toombak and shisha:
  - 32.3%.
% of Children smoking at least once a week, 1993 – 1994:

- Austria 31.2 %
- Germany 28.8
- Finland 26.2
- Spain 26.9
- UK 25.6
Toombak

- Is the most important cash crop in Darfur.
- Preparation starts in May, cultivation, August – Sept.
- Takes about 10 weeks to mature to a length of about 2 –3 feets.
- Manual harvesting Dec. -- March
Toombak

- Is a semi desert plant, cultivation confined to wadies and Vallies in Darfur, western Sudan only.
- High Temperature climate, rain range of 300 – 500 mm annually.
Toombak

- Is not irrigated.
- Fertilizers and insecticides are not used usually.
- Has a high toxicity, so animals and insects avoid it.
Toombak Agriculture Problems

- Draught..
- Reduction in soil fertility.
- Overgrazing, over cutting of trees, and deforestation.
- Primitive production techniques.
- Dependence on one main crop.
- Farmers get the least profit, whole salers, moderate profit, and Retailers gets most of the profit.
- The government of Drafur depends mainly on Toombak Taxes.
Barrier Factors For Alternative Crops

- Toombak Farming started in the 18th Century, traditional farmers are used to it.
- Toombak doesn’t need irrigation, fertilizers or insecticides, while other crops need.
- Lack of research and Research Farms, for alternative crops.
- Most of the farmers are illiterate people.
Factors Which May Promote Alternative Crops:

- Agricultural Research, and practical research farms yields to convince farmers.
- Financial support of farmers.
- Government support of water supplies e.g. Building damps to collect rain water, more use of underground waters.
- Security and political stability.
- Support and collaboration with farmers and Merchants unions.
Future Research

- More research is needed for harm reduction and development of less carcinogenic and less addictive spices of Toombak.
- Agricultural research on alternative crops.
- More health education of the population about the health problems of using Tobacco in general and consumption of Toombak specifically to reduce demand and health problems.
<table>
<thead>
<tr>
<th>Year</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>24</td>
<td>10</td>
<td>34</td>
</tr>
<tr>
<td>2000</td>
<td>25</td>
<td>15</td>
<td>40</td>
</tr>
<tr>
<td>2001</td>
<td>29</td>
<td>17</td>
<td>46</td>
</tr>
<tr>
<td>2002</td>
<td>33</td>
<td>17</td>
<td>50</td>
</tr>
<tr>
<td>2003</td>
<td>42</td>
<td>23</td>
<td>65</td>
</tr>
</tbody>
</table>
الحريري للمعمرات

التمبات ضار بالصحة ويسبب السرطان
التمباك ضار بالصحة ويسبب السرطان
المصريري للعطورات
التمباك ضار بالصحة ويسبب السرطان
الحريري للعوصابي
التمباق ضار بالصحة ويبس السرطان
تحذير وزارة الصحة
التدخين ضار بالصحة

MADE IN SUDAN