

INTERSUN

The Global UV Project

***To reduce the burden of disease resulting
from exposure to UV radiation***

**Protection of the Human Environment
World Health Organization
Geneva**

Mandate

- **United Nations Conference on the Environment and Development (UNCED) in 1992, Agenda 21:**

"Undertake as a matter of urgency, research on the effects on human health of increasing UV reaching the earth's surface as a consequence of depletion of the stratospheric ozone layer;

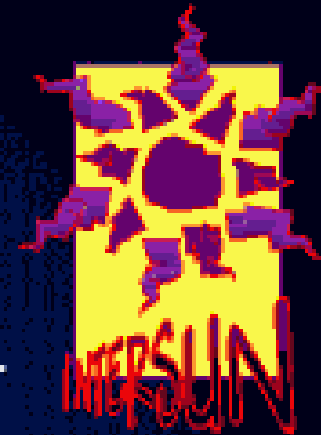
On the basis of the outcome of this research, consider taking appropriate remedial measures to mitigate the above mentioned effects on human beings."

- **Mission Statement:**

To reduce the global burden of disease resulting from exposure to UV radiation.



Ozone Depletion



- Recovery of ozone layer not predicted to occur until the middle of the 21st century
- Predicted increase in UV-related health effects with 10% decrease in total stratospheric ozone:
 - > additional 300 000 non-melanoma and 4500 melanoma skin cancers worldwide
 - > between 1.6 and 1.75 million additional cases of cataract
- Darker skin provides no protection against UV effects on the eye and immune system!

Global Burden of UV-Induced Disease



■ Skin

between 2 and 3 million non-melanoma and 132 000 melanoma skin cancers occur globally each year

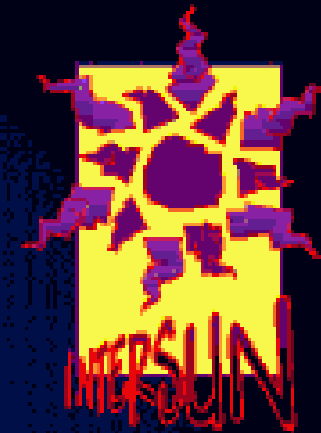
■ Eye

- cataracts account for some 16 million cases of blindness worldwide
- >3 million of these probably caused by excessive UV exposure

■ Immune system

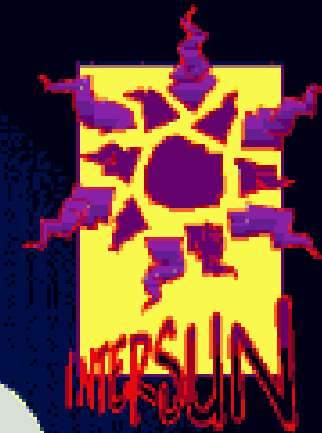
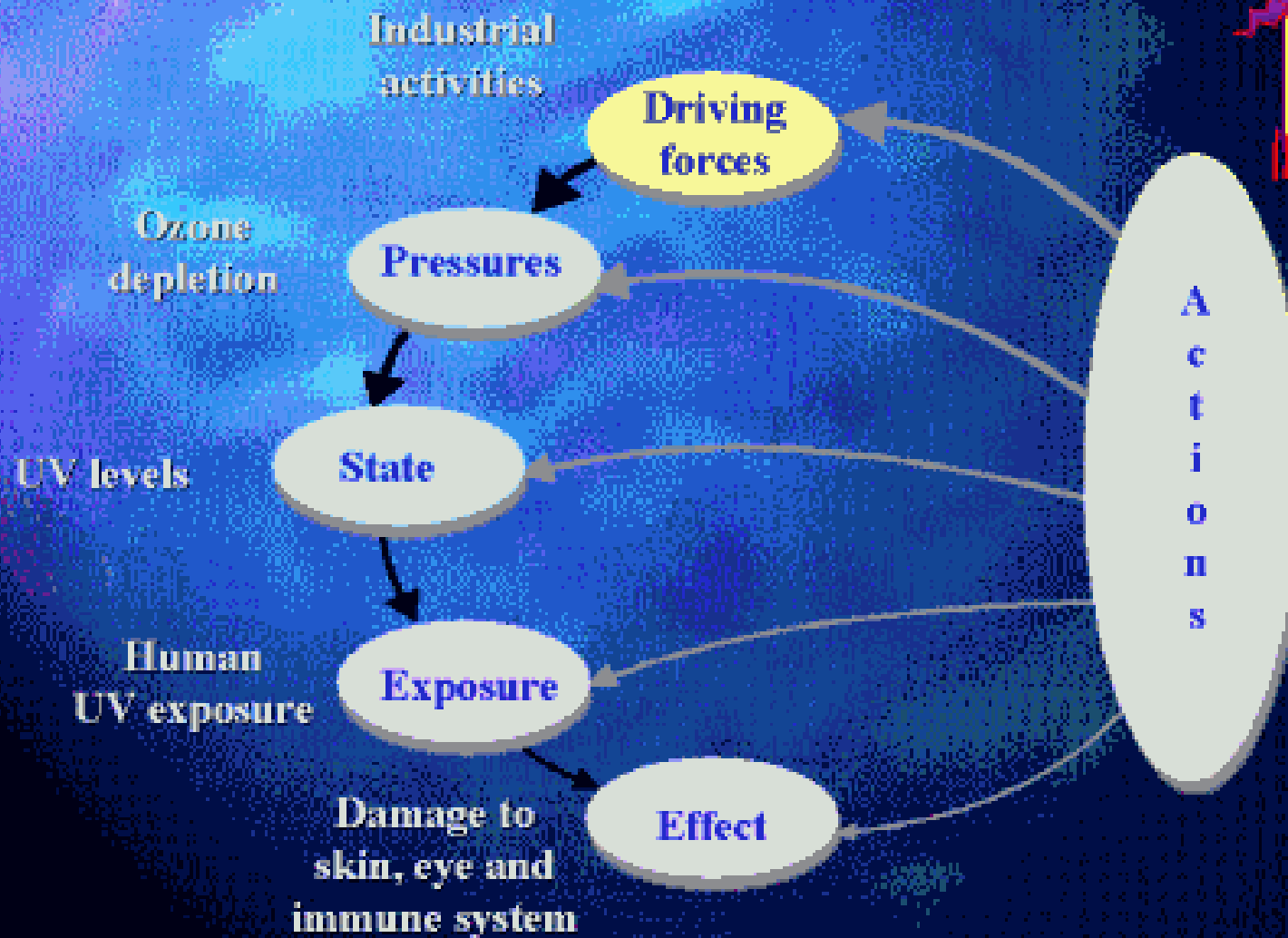
- UV alters immune responses in cell and animal studies
- environmental UV levels can suppress both rodent and human immune responses

Health care costs



- US Government spends US\$ 3.4 billion per year for 1.35 million cataract operations
- India borrowed US\$ 120 million from World Bank to reduce cataract surgery backlog
- Deaths and disfigurement from skin cancer pose a large burden on health care systems

Conceptual Framework for Action

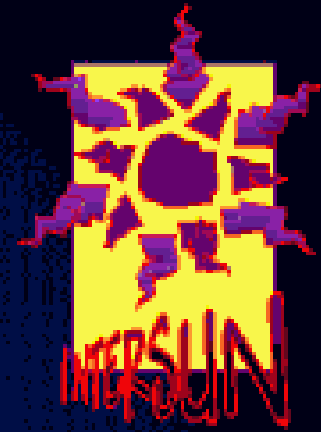


Preventive Measures to Reduce UV Radiation Exposure



- Personal sun protection
- Information
- Education
- Policy and environmental change

Personal Sun Protection



- **Limit your time in the midday sun.**
- **Seek shade.**
- **Cover up with protective clothing, a hat and sunglasses.**
- **Apply broad-spectrum sunscreen of SPF 15+.**
- **Avoid sunlamps and tanning parlours.**

Providing Information: Global Solar UV Index



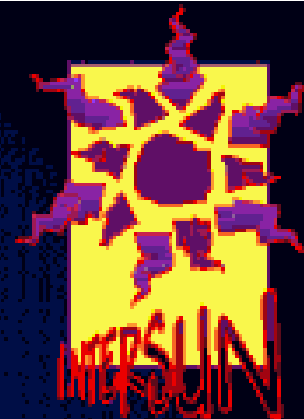
■ What is the UV Index?

- developed and published in 1995 by WHO in partnership with WMO, UNEP, ICNIRP
- a measure of UV levels at the Earth`s surface
- an essential vehicle to raise public awareness

■ Promoting sun protection through

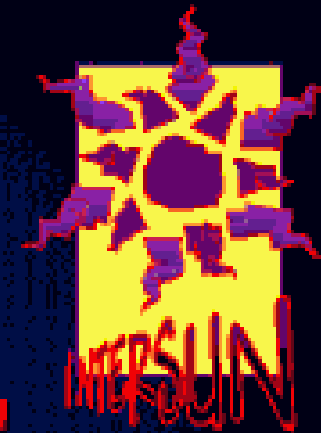
- drawing attention to the hazards of sun exposure
- educating the public about how UV levels vary
- encouraging protective sun exposure behaviour

Education makes a difference



- **Children are more vulnerable and more exposed than adults.**
- **Decrease in frequency of skin cancer**
by more than 70% with regular use of sunscreen of SPF 15+ up to age 18.
- **Twenty SunSmart school years in Australia**
 - > increase in sun protective behaviours
 - > 50% reduction in sunburn rates
 - > decreased incidence of non-melanoma skin cancers in the under 50 age group
- **Effective prevention campaigns pay off!**
 - US\$ 0.08 for education per head per year
 - US\$ 5.70 for cancer treatment per head per year

Policy and Environmental Change



■ Sun protection is relevant in all settings!

- Recreation facilities
- Parks and gardens
- Community and recreation programmes
- Streetscapes
- Outdoor workers
- Sunbeds
- Schools

■ Policy and environmental management

■ Urban planning

Example: Recreation Facility



■ Information

- Erect sun protection behaviour prompt signage
- Conduct information sessions for employees
- Display information about today's UV index

■ Clothing and sunscreen

- Encourage employees to act as sunsmart role models
- Sell sun protective clothing and sunscreen at kiosks

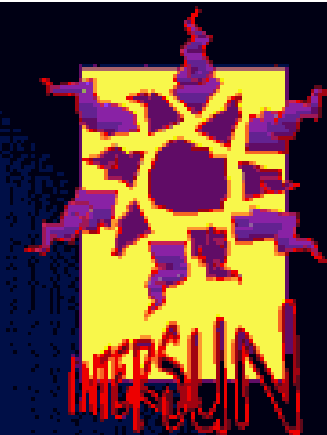
■ Shade

- Encourage development of shade structures
- Make available portable shade structures

■ Schedules and policy guidelines

- Allow users to leave pools in the middle of the day
- Develop UV control policies for outdoor activities
- Discourage facilities from operating sunbeds

Intersun's Priority Activities



- **Filling gaps in scientific knowledge**
e.g. effect of sun exposure on vaccinations
- **Assessing and quantifying health risks**
e.g. assessing the burden of disease attributable to UV radiation
- **Promoting sun protection**
e.g. developing and implementing a framework for children's sun protection education
- **Promoting the UV Index**
e.g. improving the use of the UV Index as a tool in educational programmes