

Emerging Ecological Perspectives in Public Health

George Morris **(as interpreted by Mike Holland)**

European Centre for Environment and Human Health

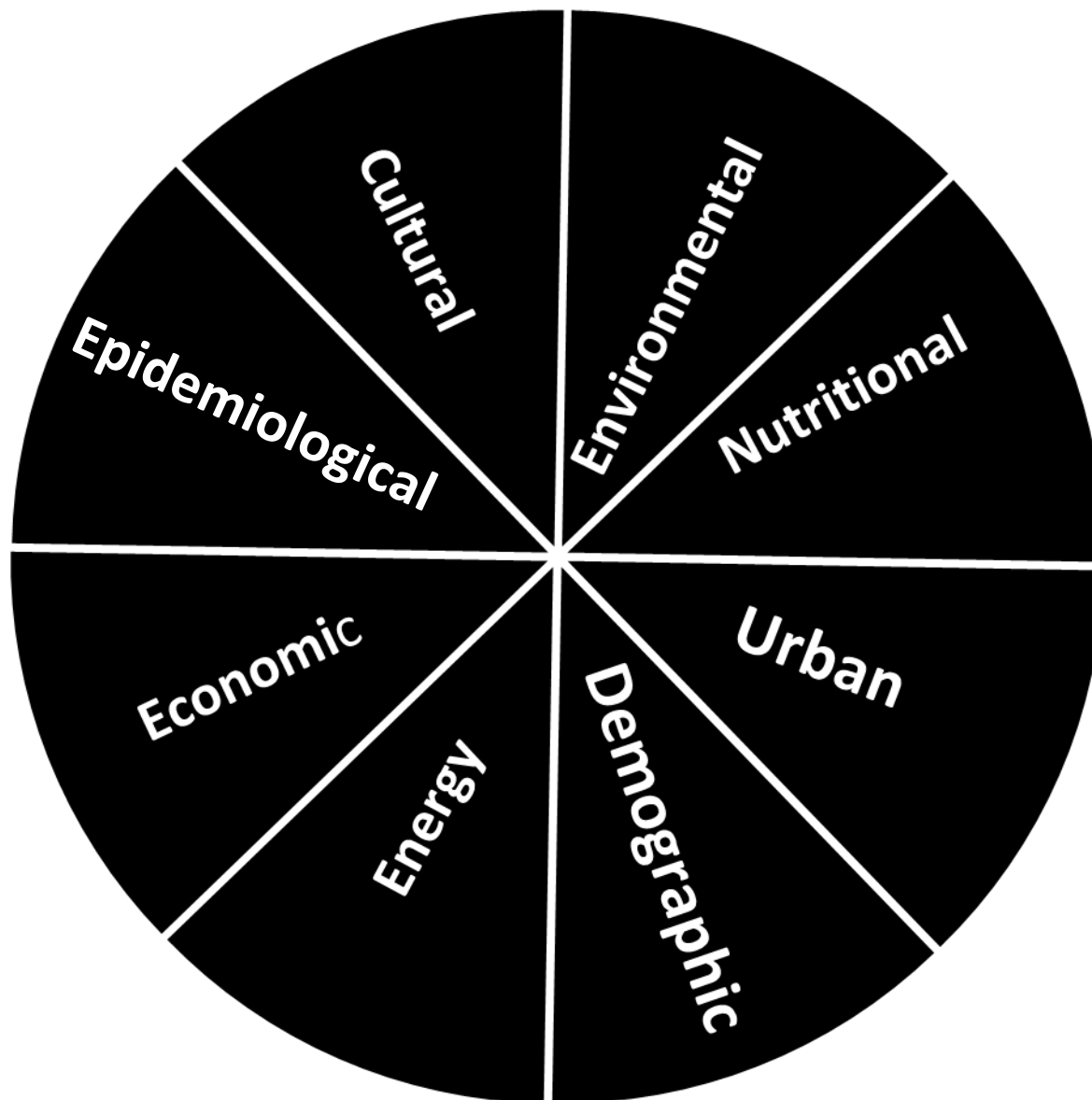
Symposium on Environmental Health and Economics

Bonn 14th October
2013

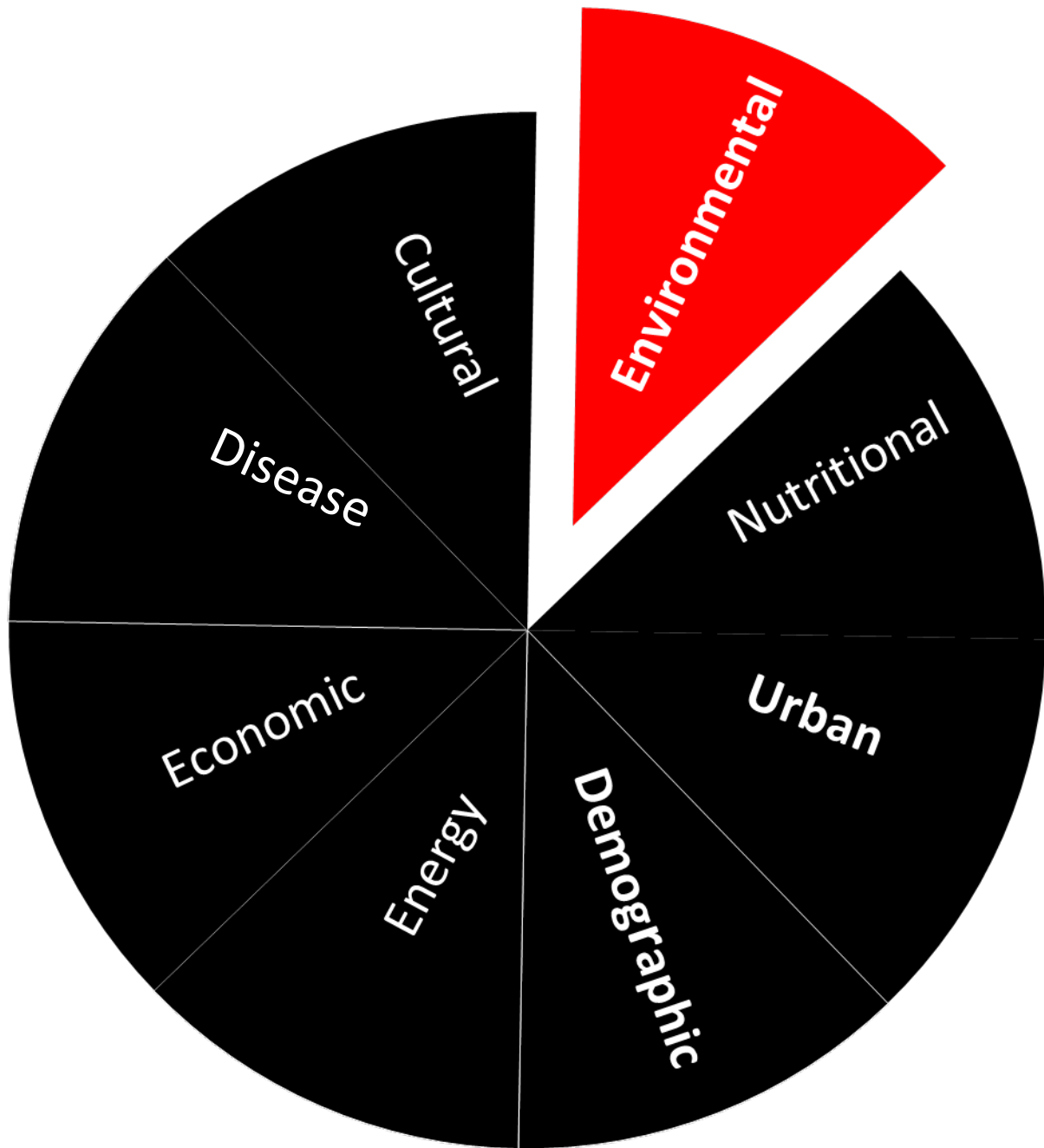
“A core notion within public health – however defined - is the notion of changeand the actions of those seeking to improve public health and wellbeing will vary as circumstances and conditions dictate”

Rayner & Lang (2012)

Many Transitions are Key for Health and Wellbeing



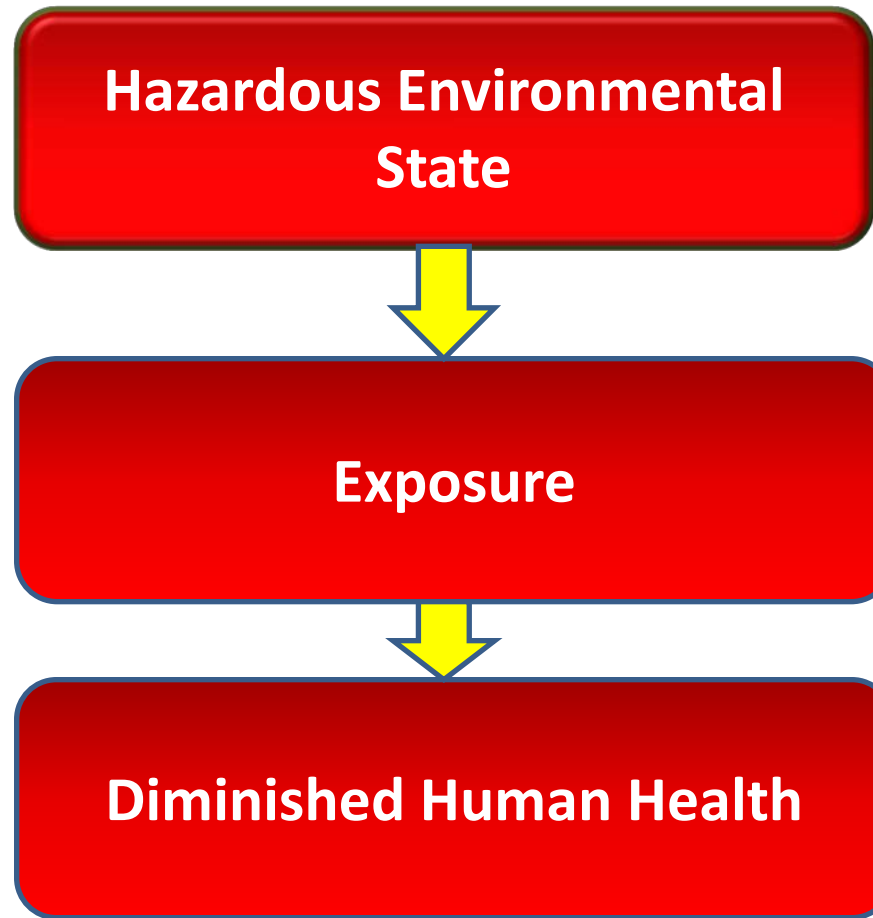
- Nutritional
- Urban
- Demographic
- Energy
- Economic
- Disease
- Cultural
- Environmental



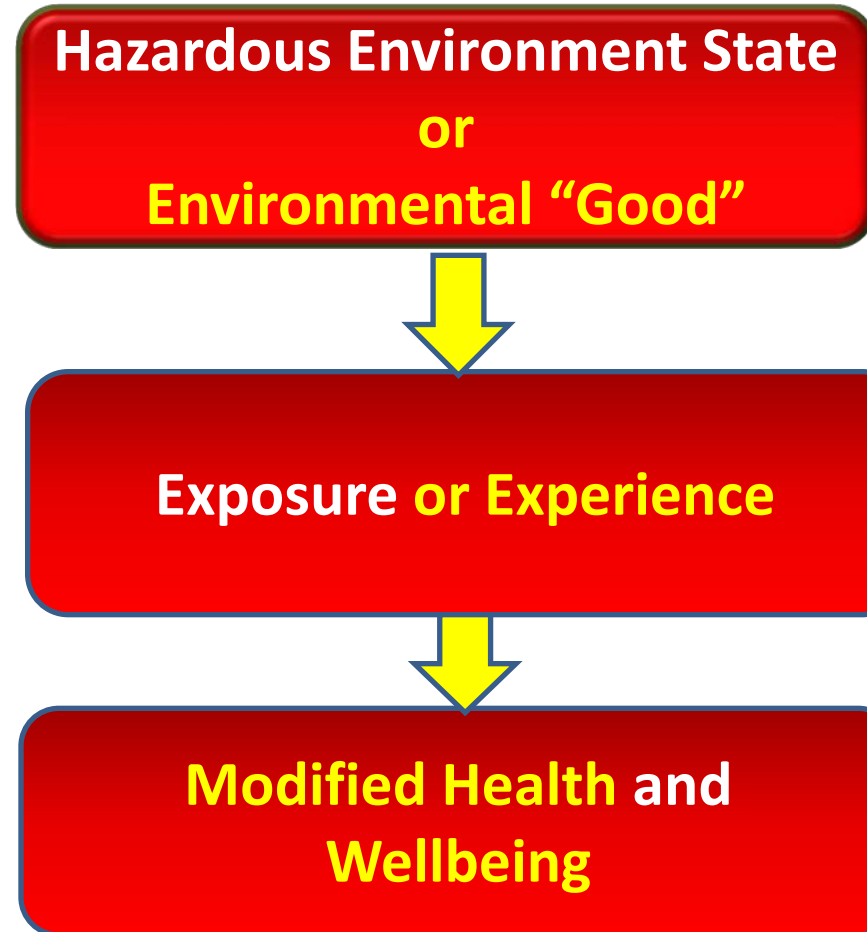
- Nutritional
- Urban
- Demographic
- Energy
- Economic
- Disease
- Cultural
- Environmental

The Environment in Public Health

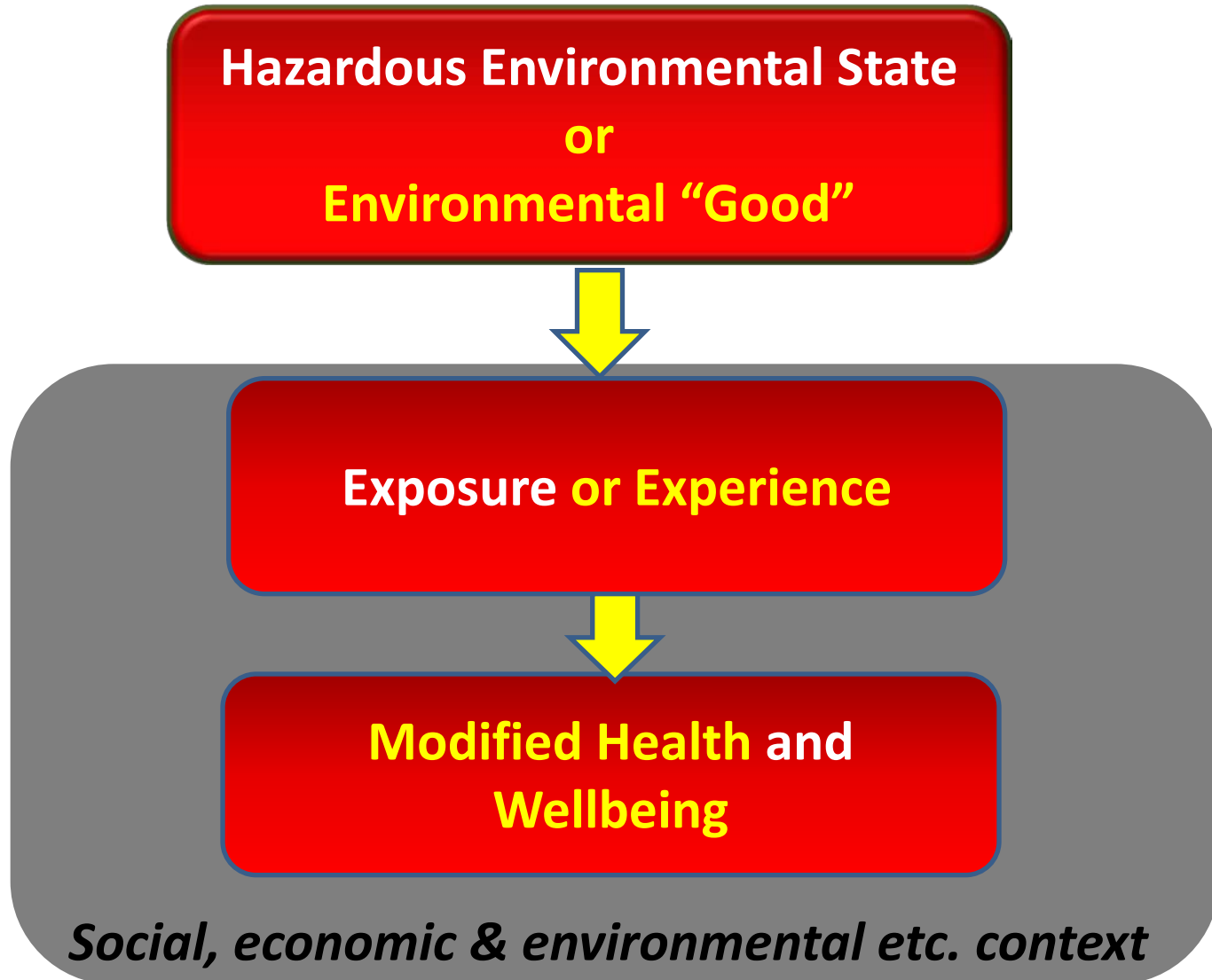
The “Classical” Environment: Health Interface in Public Health



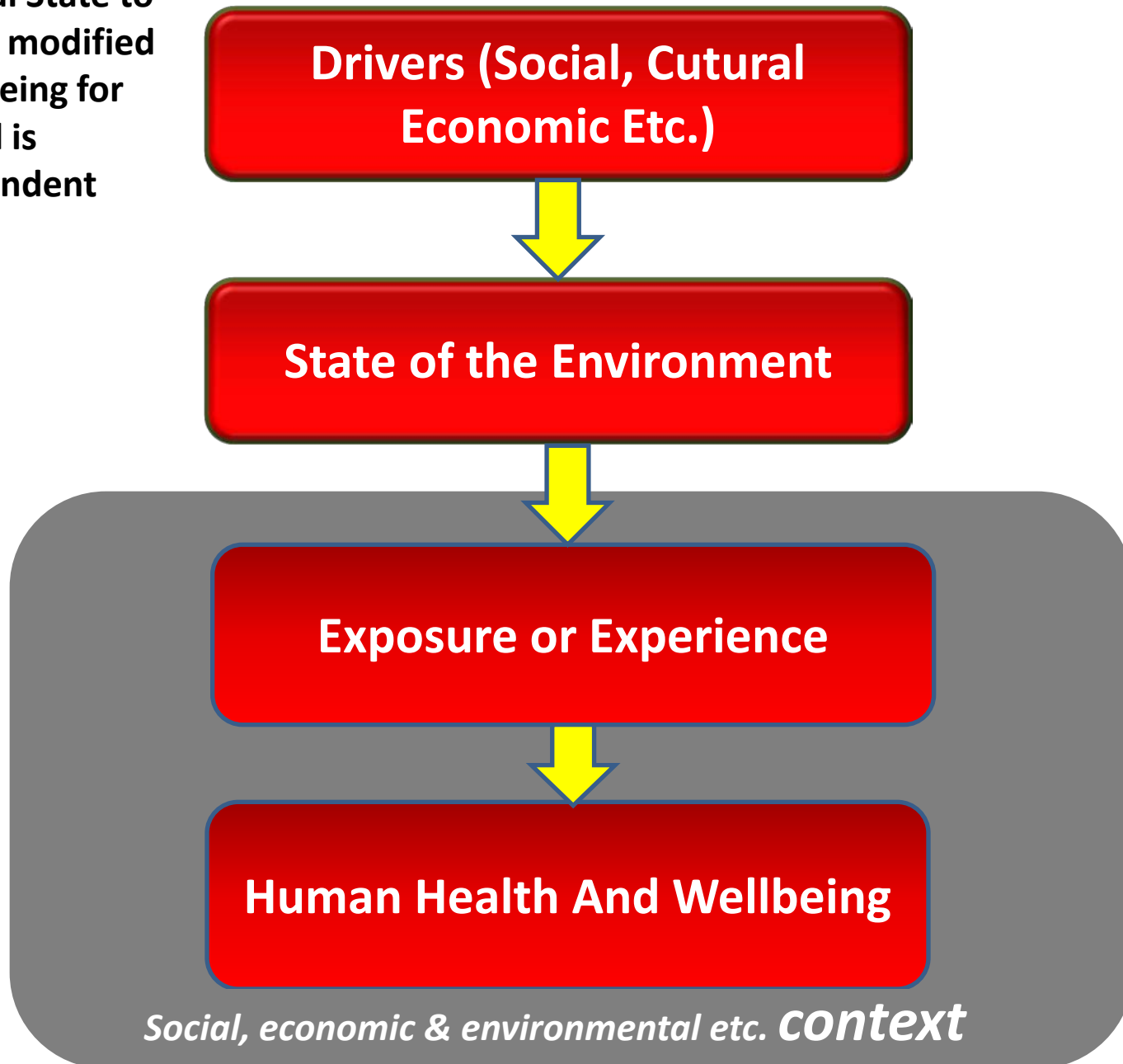
A more realistic representation?



More realistic still!

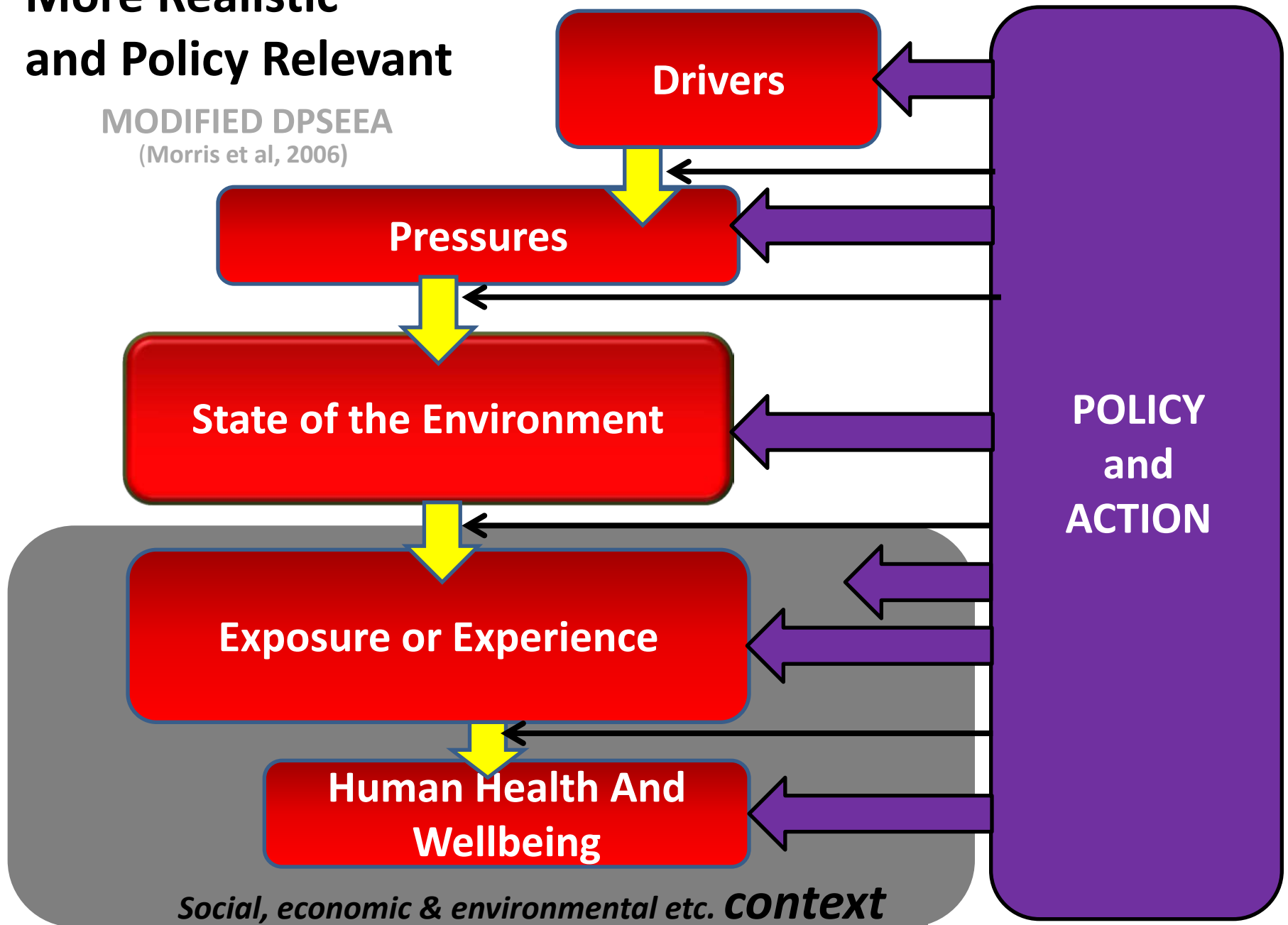


The Transition from an Environmental State to Exposure and modified Health/Wellbeing for the individual is Context Dependent



More Realistic and Policy Relevant

MODIFIED DPSEEA
(Morris et al, 2006)



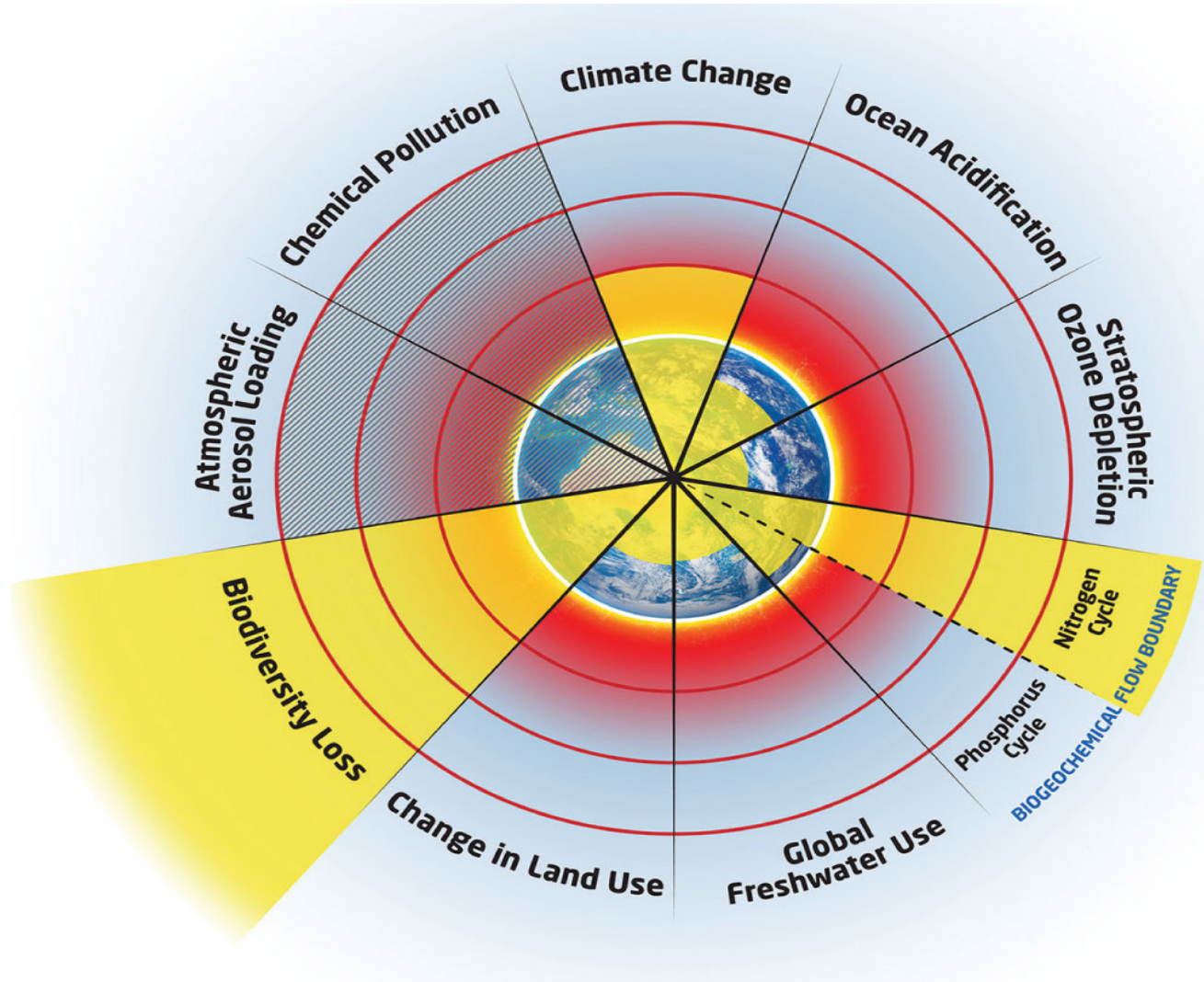
‘Modified DPSEEA’ has proved useful in policy as tool to think about environment; a tool to engage; and a tool to communicate in a era dominated by what public health people call socio-ecological complexity

However

Despite taking us forward and raising the profile of environment in human health wellbeing and in health inequalities it is simply insufficient as a tool to think with in thee current context

- The state of the environment, and how it will change in the future, is most alarming transition and it is **intimately connected to our health and wellbeing**
- Climate change, biodiversity loss, pollution, water issues and food security are already undermining health and wellbeing nationally and globally
- We must re-think things as a society - we can no longer consider health, wellbeing and health services without thinking about the environment

A Safe Operating Space for Humanity: Planetary Boundaries



Rockstrom et al (2009)

The only logical conceptualisation of public health for the 21st Century is an environmental conceptualisation of public health

Calls are now growing for the operationalization of

Ecological Public Health

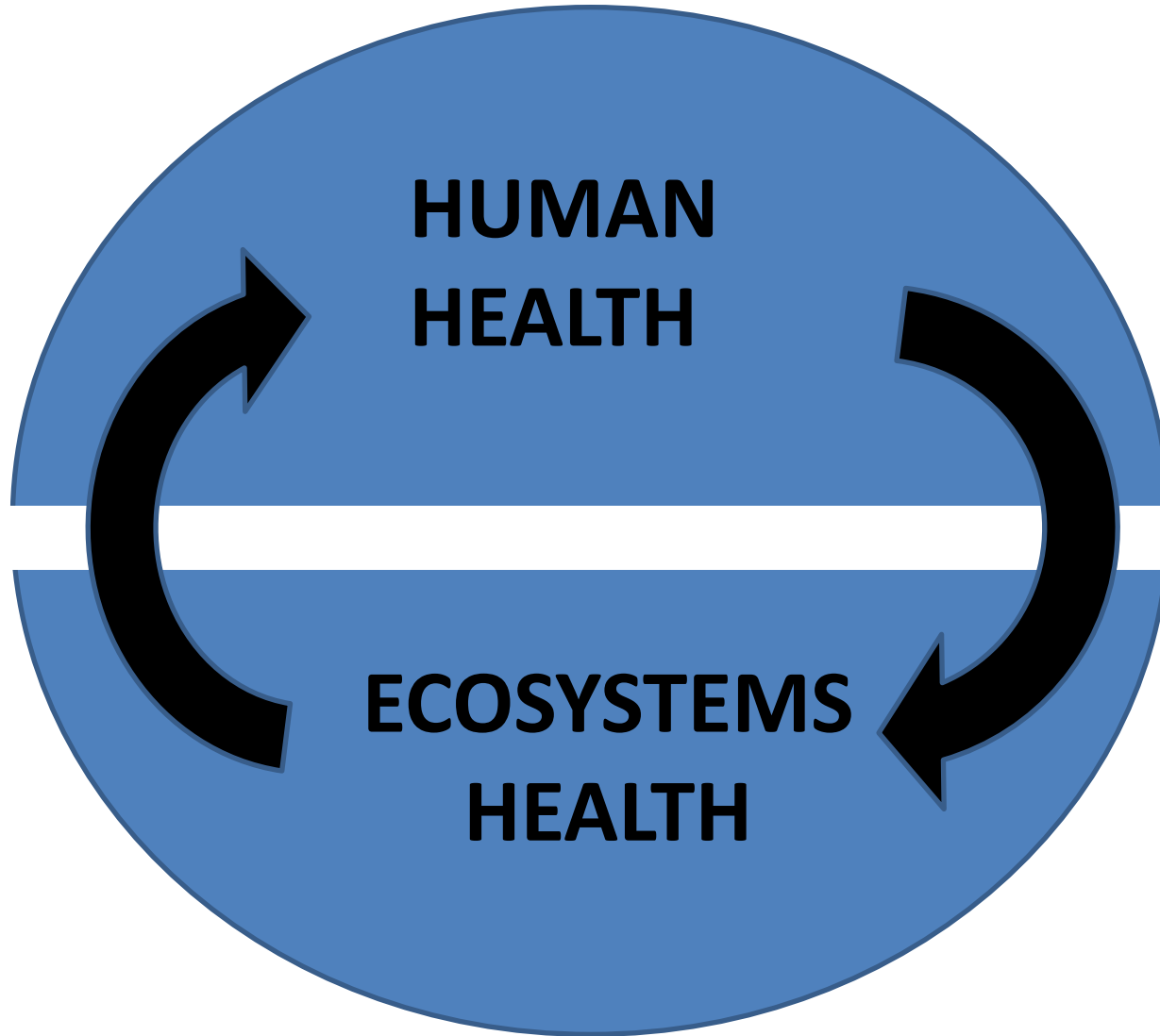
Why is Ecological Public Health Different?

- EPH posits that human (social) ecology is inextricably linked to natural ecology and in dynamic interaction with it
- Unlike previous expressions of the environmental contribution to health and wellbeing, environment is no longer an “out there”
- EPH is a unifying concept on many levels

Why is Ecological Public Health Different?

- EHP reminds those who might think we can plunder, destroy and ignore environment that ecological forces underpin all life.
- It does not retreat from complexity ... there are no pump handles in this story!
- EPH demands an integration of Environmental Impact Assessment and Health Impact Assessment

“THE DYNAMICS OF ECOLOGICAL PUBLIC HEALTH”



**Applying an Ecological Perspective
in Practice**

**Ecosystem Services and Human
Wellbeing**

Ecosystem Services

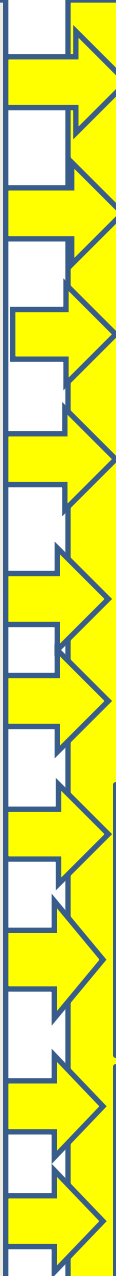
Link to Wellbeing Through:

SUPPORTING
Nutrient Cycling
Soil Formation
Primary
Production

PROVISIONING
Food
Freshwater
Fuel
Wood
Fibre etc.

REGULATING
Climate Reg.
Flood Reg.
Water Purif.

CULTURAL
Aesthetic
Spiritual
Educational
Cultural



HUMAN SECURITY
Personal Safety
Secure Resources etc.
Security from Disasters etc

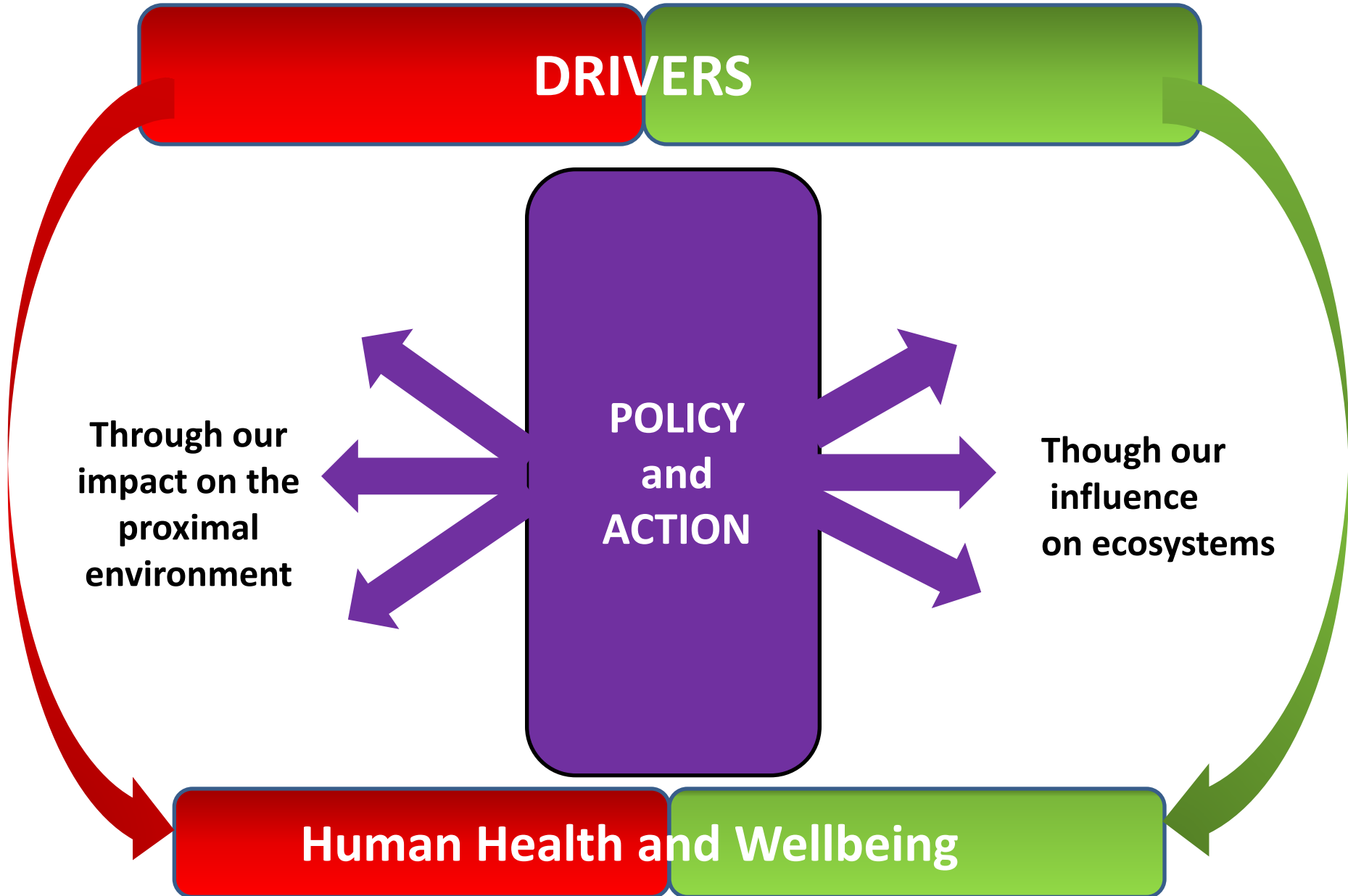
MATERIAL MINIMA
Adequate Livelihoods
Shelter etc.
Fuel, Food, Fibre etc.

SOCIAL RELATIONS
Social Cohesion
Mutual Respect
Ability to Help others

FREEDOM OF CHOICE
Opportunity to achieve what
an individual values doing
and being

HEALTH
Strength
Feeling Well
Access to Clean Air, Water, etc.

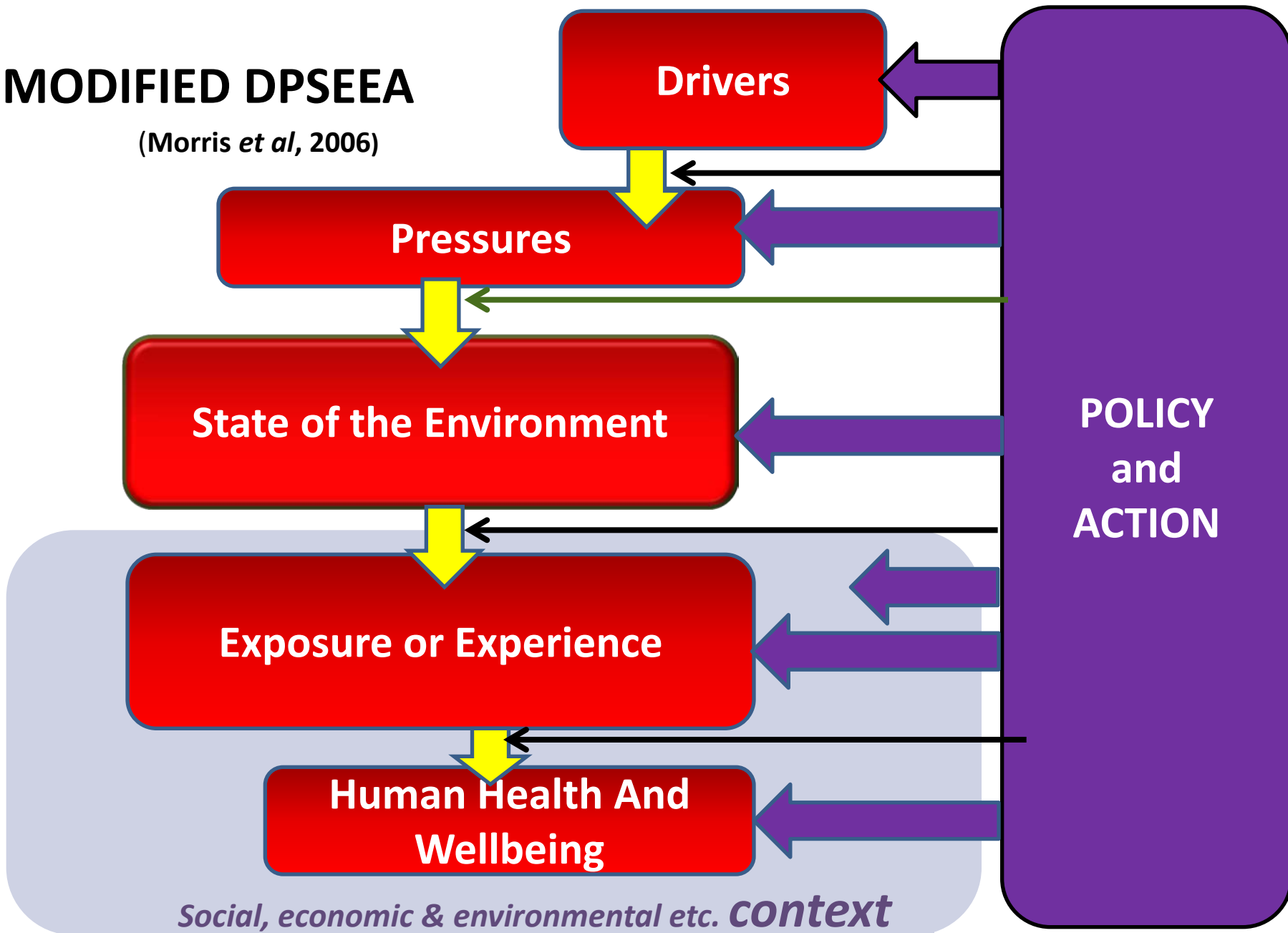
TWO PATHWAYS



DRIVERS TO HEALTH EFFECT VIA THE PROXIMAL ROUTE

MODIFIED DPSEEA

(Morris *et al*, 2006)

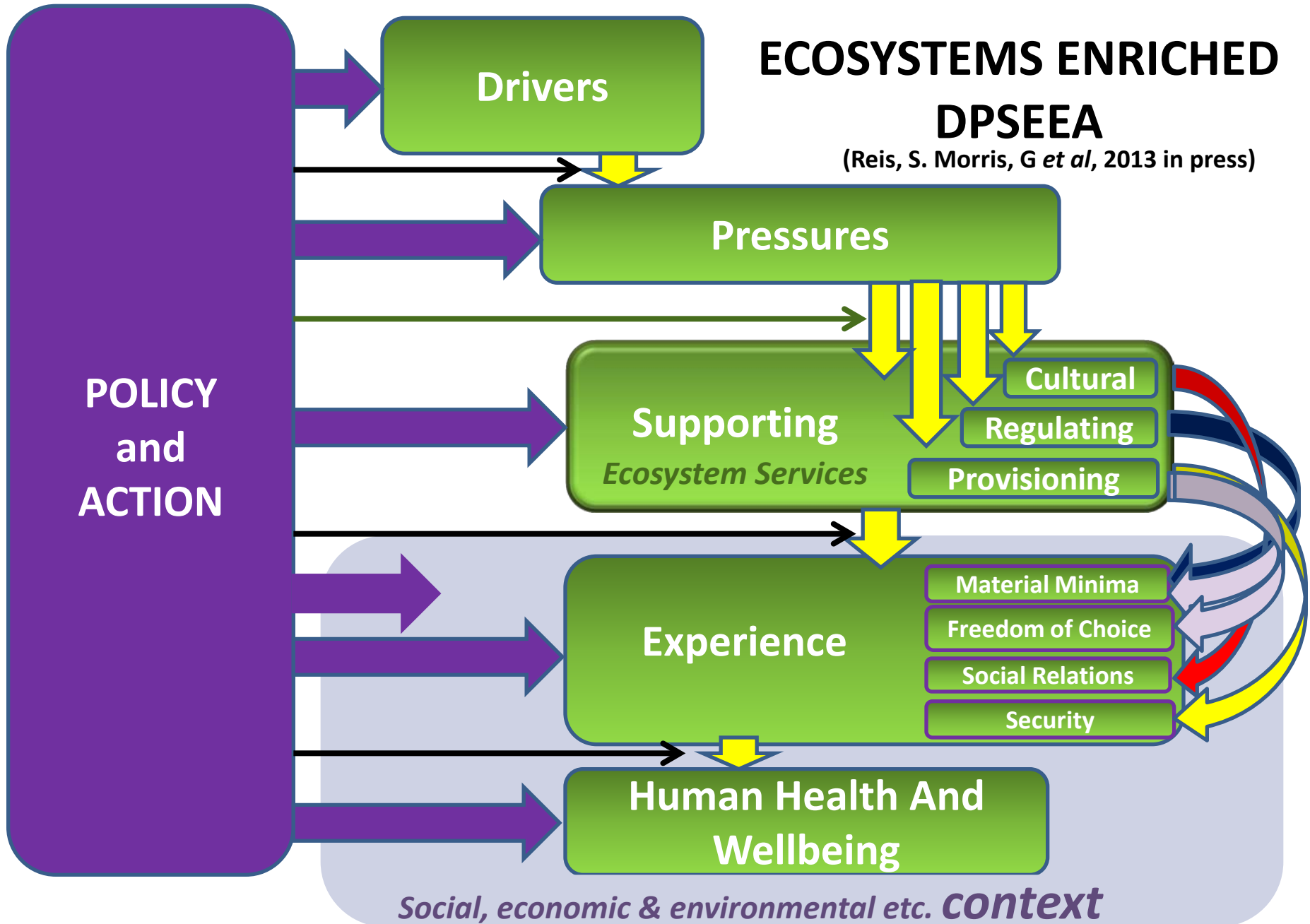


DRIVERS TO HEALTH EFFECT VIA AN ECOSYSTEM SERVICES ROUTE

ECOSYSTEMS ENRICHED

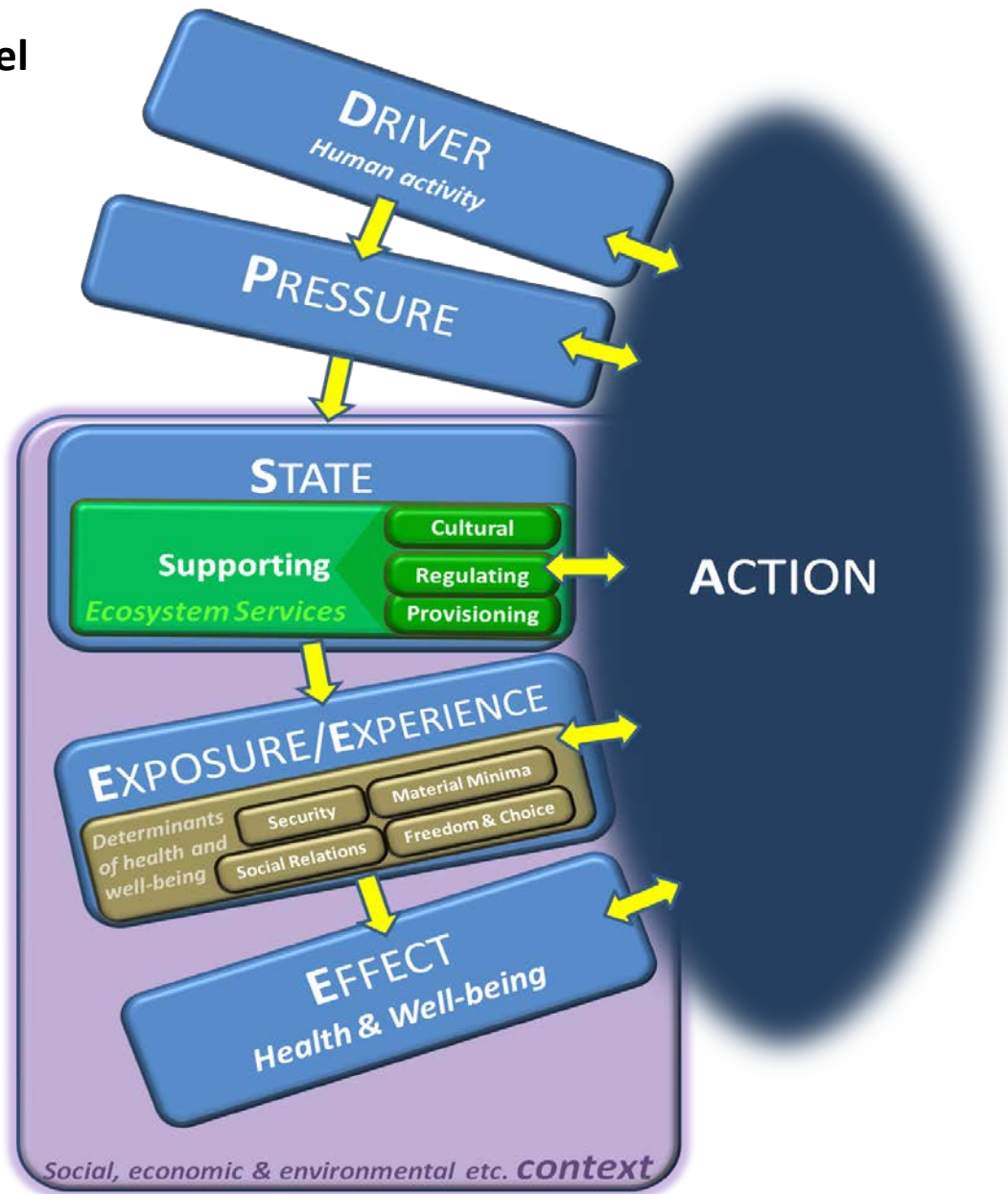
DPSEEA

(Reis, S. Morris, G et al, 2013 in press)



The eDPSEEA Model

(Reis et al, 2013)



Available online

<http://dx.doi.org/10.1016/j.puhe.2013.07.006>

Applying and Ecological Perspective in Practice

5 Pillars of Ecological Public Health

A Suggested Goal: A Society in which health, wellbeing, inclusiveness, equity etc. are pursued in a way which respects planetary boundaries and creates and protects a safe an operating space for humanity and the species with which we share the planet

<p>Adopt <u>Holistic Issue Framing</u></p> <p>Complexity</p> <p>Planetary Boundaries</p> <p>Ecosystem Services</p> <p>Interconnectivity</p> <p>etc</p>	<p>Synthesise a <u>Mixed Economy of Evidence</u></p> <p>Qualitative</p> <p>Quantitative</p> <p>Experimental</p> <p>Non-Experimental,</p> <p>Multiple Sources</p>	<p>Develop an Appropriate <u>Ethical Framework</u></p> <p>Sustainability</p> <p>Equity</p> <p>Environmental Justice</p> <p>Social Justice</p> <p>etc.</p>	<p>Carefully Consider <u>Infrastructure</u></p> <p>Institutional</p> <p>Educational</p> <p>Physical</p>	<p>Work to Optimise <u>Governance</u></p> <p>Transparency</p> <p>Stakeholder Engagement</p> <p>Accountability</p> <p>etc</p>
---	---	--	---	---

5 PILLARS OF ECOLOGICAL PUBLIC HEALTH

The Entangled Bank



Personal (MH) reflections on this presentation

- In the last 5 years growing recognition of the depth of health-environment links in developed (as well as developing) countries
- Facilitated through the environmental services debate
- Some ecologists and health specialists interested in working together
- Divides exist but are being bridged

Personal (MH) reflections on this presentation

- Growth in interest
 - Beyond GDP debate – wellbeing, ecosystems
 - WHO EHEN (Environmental Health Economics Network)
- Still largely at the conceptual level
- ‘Wellbeing’ concept needs to be disaggregated