今年第6屆性別高峰會--亞太地區(GS6—AP)在南韓舉行,參與人士在會議尾聲簽署了一份宣言,並廣邀亞太地區所有認同宣言的人士共同簽署此份首爾宣言。為了方便讀者閱讀,深刻體認宣言的呼籲並付諸行動,特作此中文翻譯。如果您也認同,敬請立即上網簽署,讓我們共同打造一個更敏銳、更友善、更創新的性別/科技社會環境,加速整體的經濟發展。

## 首爾宣言:推動亞太地區之性別研究、創新及社會經濟發展

科技部「促進科技領域之性別研究規劃推動計畫」翻譯

## 請願背景 (序文)

長期以來,女性與男性在參與研究及科學知識的不平等,阻礙了科技創新所能引發的整體社會經濟效益。女性是科學中的少數,許多證據顯示男性在科學研究中具有優勢,尤其在研究結果與機會上,皆有利於男性在研究領域內的發展,卻忽視了女性的需求。

但是,現今有大量的證據顯示,科學知識的性別偏見會造成研究品質的負面影響,且對男性與女性都一樣。因此,只要我們持續並系統性地瞭解這些根本成因,我們就會有足夠充分的知識,去發展具性別敏感度的科學研究,並獲得—所產生的效益。

出席 2015 年第 6 屆性別高峰會-亞太地區(GS6 -AP)的科學家、性別研究學者和政策領導人們,討論了該地區研究與創新中的性別議題複雜性和多樣性。這些討論進一步確認,納入性別觀點的科學研究與分析將為研究領域與社會經濟帶來更多效益。

歐洲的科學與政策領導人們已經採用了類似的行動,作為歐盟展望 2020 (EU Horizon 2020 Programme)的規劃策略,也將其作為國家層級的策略方針。

我們呼籲亞太地區的科學與政治領導人,一同促進性別覺察與具性別敏感度 的研究與創新,以提高科學研究的品質,並且增進該地區的社會與經濟發展。

#### 請願

我們,簽署者同意以下的行動建議:

- 1. **合作 (Collaborate)**。透過國家和區域的合作,對科學中常見的性別議題進行持續性對話,例如:科學卓越的標準;這些問題對科學領域的政策制定者、科學家、性別研究專家和利害關係人,包括業界和市民,都是非常重要的。
- 2. **提問** (**Ask**)。為確保研究過程的品質,應提問「是否,以及在何種意義下,生理性別(sex)和社會性別(gender)的差異是和計畫本身所訂定的目標和方法有重大相

- 關」。相關證據顯示,「科學是性別中立」的說法並非屬實。例如,未考慮性別時, 女性與男性的健康和安全研究,常獲致不同的研究結果。
- 3. **制定 (Establish)**。制定研究和創新的協議、標準、監管制度、以及有約束力的建議,以檢驗已知需被驗證的研究成果,以確保對女性和男性皆具有安全和療效,例如診斷的生物標記、幹細胞醫學和輔助工具等研究。
- 4. 協議 (Agree)。協議專有名詞、架構以及模型之使用,來提報生理性別和社會性別在科學脈絡中的角色與影響,並分辨何時使用生理性別(sex)和社會性別 (gender)來解釋研究結果。目前文獻中已有相當程度的術語混淆,這將連帶影響系統性回顧和後設分析研究(meta-analytic studies)結果。
- 5. **創造** (**Create**)。藉由推廣性別創新(gendered innovation)的生態系統,為科學知識創造新市場與新機會。這樣的系統可以透過利用:(1)具性別敏感度的研究;(2)女性與男性的不同利益與產品需求;以及 (3)有效利用現有的女性科學和創意資本;藉由三者之間的關聯進行改善調整,例如,改善高齡者的語音識別產品或裝置。
- 6. **引進** (Involve)。引進更多女性進入創新價值鏈—包含理念創新、開發和應用。 證據顯示:(1)團隊內的性別平衡可促進集體智慧的發展;(2)以網路「群眾外包」 (crowdsourcing)為例,正視創新圈外的女性可能提供更好的解決方案;(3)當實驗失 敗時,女性和男性常採用不同的問題解決策略。
- 7. **確認** (**Identify**)。確認可以提供性別分析的統計數據、指標和方法,以更周延地理解當前在機構、國家、和區域層級的科學內性別平等現狀。主要措施包括:(1) 在科學教育的參與、研究和創新,學術、產業以及相關的雇用之中取得性別平衡;(2)制定機構內之性別平等政策;(3)關注男性和女性的生涯進展;(4)關注獲得研究經費的申請和成功率。
- 8. **教育 (Education)**。從學校開始,包括大學生、研究人員、研究管理人員以及科學傳播者,教導他們研究和創新領域中納入性別觀點的重要性。常見抗拒變革的來源包括隱性和顯性的性別偏見及性別刻板印象。年僅9個月大的嬰孩已經可以分辨性別角色,而年屆2歲的孩童就已經建構自身的性別刻板印象,這都反映了他們所生活的社會是充滿性別偏見與刻板印象。
- 9. **評斷**(**Judge**)。使用明確與公正的評估標準,來評斷個人與科學的品質與潛力, 監控成果的性別偏見跡象,以改善選拔過程。證據顯示,常見於研究團隊徵聘、 工作求職機會、升遷機會,以及獲取研究經費獎勵績效中的性別偏見,皆有利於 男性成功。

10. **創造** (Create)。透過資助政策與計畫,創造性別研究與創新在實務上應用的條件,鼓勵跨學科和跨部門的協作,例如大學、產業和民間社會組織之間的合作。

(本譯文已獲 GS6-AP 性別峰會主辦單位的同意使用)

## 宣言原文:

# Seoul Declaration to Advance Gendered Research, Innovation and Socio-economic Development in the Asia Pacific

Petition published by Gender Summit 6 Asia Pacific on Sep 02, 2015

**Target:** Science and policy leaders

**Region:** GLOBAL

Web site: http://gender-summit.com/gs6-about

#### **Petition Background (Preamble):**

The historical inequalities between women and men in research participation and in science knowledge create barriers to achieving the full socio-economic benefits of science-led innovation. With women in a minority and science with more evidence for men than for women, outcomes and opportunities are biased to advantage the needs of men and overlook the needs of women.

But now, extensive evidence shows that gender bias in science knowledge making can negatively impact on the quality of scientific research for both women and men. Whilst we continue building systematic understanding of the underlying causes, we have enough solid knowledge to generate the benefits of gender sensitive and responsive research.

The scientists, gender scholars and policy makers attending the Gender Summit 6 - Asia Pacific 2015 (GS6 – AP) discussed the full complexity and diversity of gender issues in research and innovation in the region. These discussions identified numerous scientific and socio-economic benefits of adopting gendered approaches to research and innovation.

Science and policy leaders in Europe have already taken such actions as a strategy for the EU Horizon 2020 programme, as well as at national level.

We call on science and policy leaders in Asia Pacific to promote gender aware and sensitive research and innovation to improve the quality of science and enhance

socio-economic development in the region.

#### **Petition:**

We, the undersigned agree on the following recommendations for actions:

- 1. COLLABORATE by creating national and regional alliances to enable continued dialogue on common gender problems in science, such as criteria of scientific excellence, which are of concern to policy makers, scientists, gender research experts, and stakeholders in science endeavours, including industry and citizens.
- 2. ASK, to ensure quality of research process, "whether, and in what sense, biological sex and gender differences are relevant in the objectives and methodology of the project". Evidence demonstrates that the assertion that science is gender neutral is not the case. For instance, when gender is not taken into account, research often results in different health and safety outcomes for women and men.
- 3. ESTABLISH research and innovation protocols, standards, regulatory regimes, as well as binding recommendations in areas where evidence already demonstrates the need to validate results to ensure safety and efficacy for both women and men. Examples include diagnostic biomarkers, stem cell medicine and assistive devices.
- 4. AGREE on accepted terminology, schema and models for representing and reporting the role and effects of biological sex and gender in scientific contexts, for instance when to use the term 'sex' and when to use 'gender' when explaining study results. There is considerable confusion in the research literature regarding terminology and this affects the potential for conducting systematic reviews and meta-analytic studies.
- 5. CREATE fresh opportunities for developing new markets for science knowledge by advancing gendered innovation ecosystems. Such systems can be constructed by exploiting connections between: 1) gender sensitive research; 2) the different interests and product needs of women and men; and 3) making better use of the available female scientific and creative capital. These may involve, for instance, speech recognition products or devices promoting healthy aging.
- 6. INVOLVE more women in innovation value chains in idea creation, development, and implementation. Evidence shows that: 1) gender balance in a team improves its collective intelligence; 2) in 'crowd sourcing' innovation, women outside the formal innovation circles contribute better solutions than others; and 3) when experiments fail,

women and men adopt different problems solving strategies.

- 7. IDENTIFY statistics, indicators, and methods for collecting sex-disaggregated data to enable better understanding of the current situation regarding gender equality in science at institutional, national, and regional level. Key measures include: 1) gender balance in participation in science education, in research and innovation, and in science-related academic, industry and related employment; 2) institutional gender equality polices; 3) progression stages in the career pathways of women and men; and 4) applications and success rates in access to research funding.
- 8. EDUCATE, starting with schools and including university students, researchers, mangers of research and science communicators about the importance of including gender perspectives in research and innovation. Common sources of resistance to change include implicit and explicit gender bias, and cultural gender stereotypes. Children as young as 9 months can distinguish gender roles and by the age of 2 years have constructed their own gender stereotypes, which reflect those of the society they live in.
- 9. JUDGE the individual and scientific quality, and potential, of women and men using clear and fair assessment criteria, monitoring outcomes for signs of gender bias in order to improve the selection process. Evidence shows that bias in the evaluation of merit is common and favours the success of men: in recruitment to research teams and jobs; in career promotion; and in the award of research grants.
- 10. CREATE conditions for the gendered research and innovation principles to be implemented in practice through funding policies and programmes, encouraging cross-disciplinary and cross-sector collaboration, for example between universities, industry and Civil Society organisations.

Sign the petition