

Challenges in applying KFPE 11 principles

in projects aiming at developing expertise and capacities for innovation and sustainable sanitation programmes implementation.

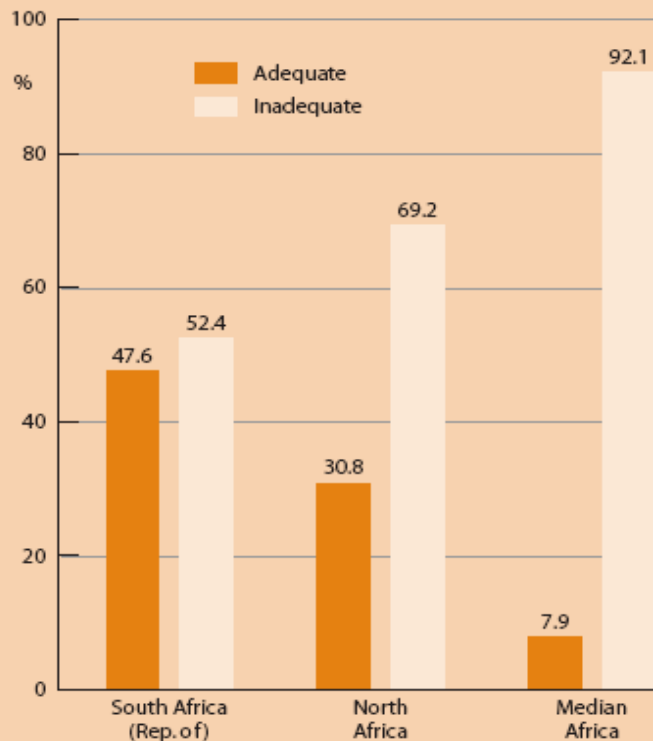
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Challenges for better education in developing countries

Figure 1
ADEQUACY OF SCIENTISTS' SALARIES IN AFRICA,
1999
By region and major country



Source: Unesco Science report 2005

Source: Gaillard, J.; Furó Tullberg, Anna (2001) *Questionnaire Survey of African Scientists. IFS Grantees and INCO Beneficiaries.*

Low wages for researchers and trainers

“The Millennium Development Goals (**MDGs**) represent a global commitment to improve economic and social conditions in low-income countries.

Capacity building is key to promoting higher economic growth, which, in turn, is an important prerequisite for making progress toward the MDGs” (IMF).

Challenges for better education in developing countries

“Scientific production, leading to development, in the wealthiest societies is 50 times higher than in Sub-Saharan Africa! No African university ranks among the world top 200!”

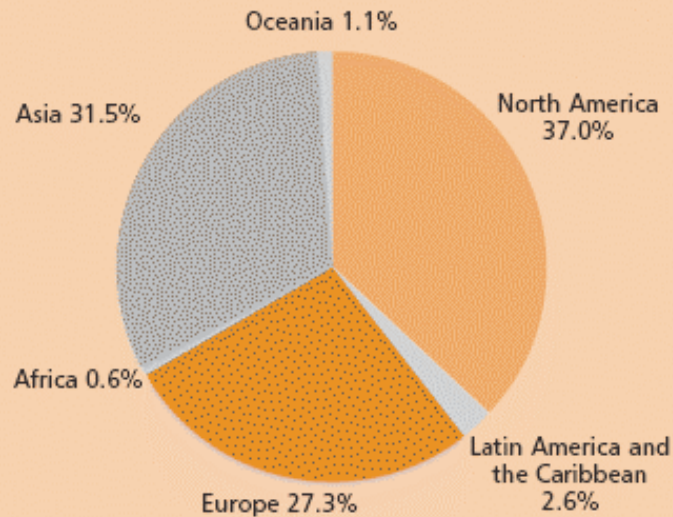
Table 2
WORLD RESEARCHERS, 2002

	Researchers (thousands)	% world researchers	Researchers per million inhabitants	GERD per researcher (US\$ thousands)
World	5 521.4	100.0	894.0	150.3
Developed countries	3 911.1	70.8	3 272.7	165.1
Developing countries	1 607.2	29.1	374.3	114.3
Less-developed countries	3.1	0.1	4.5	153.7
Americas	1 506.9	27.3	1 773.4	218.2
North America	1 368.5	24.8	4 279.5	224.5
Latin America and the Caribbean	138.4	2.5	261.2	156.5
Europe	1 843.4	33.4	2 318.8	122.7
European Union	1 106.5	20.0	2 438.9	177.0
Comm. of Ind. States in Europe	616.6	11.2	2 979.1	29.1
Central, Eastern and Other Europe	120.4	2.2	895.9	103.4
Africa	60.9	1.1	73.2	76.2
Sub-Saharan Countries	30.9	0.6	48.0	113.9
Arab States Africa	30.0	0.5	159.4	40.9
Asia	2 034.0	36.8	554.6	128.5
Comm. of Ind. States in Asia	83.9	1.5	1 155.0	8.9
Newly Indust. Asia	291.1	5.3	777.2	183.7
Arab States Asia	9.7	0.2	93.5	66.6
Other Asia	65.5	1.2	100.2	20.9
Oceania	76.2	1.4	2 396.5	114.4

Source: Unesco Science report 2005

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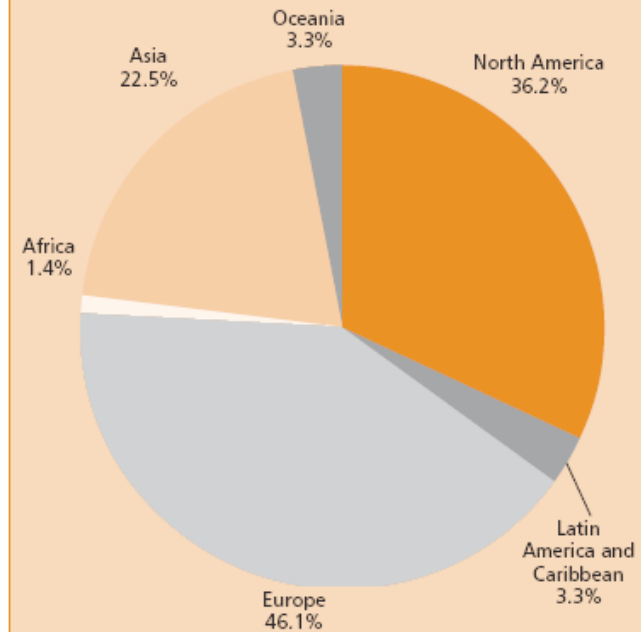
Figure 1
WORLD SHARES OF GERD, 2002
By region



Source: Unesco Science report 2005

Investment in research

Figure 3
WORLD SHARES OF SCIENTIFIC PUBLICATIONS,
2001
By continent



Source: Unesco Science report 2005

Production of scientific publication

Note: The sum of the percentages, for the various regions exceeds 100%, because papers with multiple authors from different regions contribute fully to each of these regions.

Applying KFPE 11 principles – Deciding on objective together

An imbalance dialogue

- I want to do research involving PhDs and MScs / I want a well equipped laboratory
 - What do you think about these objectives / Our students need good training to be excellent servant
 - Can you propose a PhD student? / Do you offer training opportunities at your university?
 - This is a chance to publish in higher impact journal / I need to secure my position
 - What is your opinion? / the hand which receives is always below
 - What would be your contribution / what does the donor want?
 - Impossible to get a good candidate here/ will you help setting the right curricula?
-

Applying KFPE 11 principles – Building mutual trust

Getting to know the partner

- I bring the money / I offer cheap labour cost for publication
 - I come from a reputed university / how long will be using our knowledge, facilities and enjoying the climate?
 - Your family and friends are very nice / what does your country look like?
 - My students will stay 6 months year / ok
 - We will download the papers for you / Can't we do our own literature search?
 - We need to finish in 3 years / my dedicated students still need a second job to make their living
 -
-

Sustainable development = knowledge + skills + awareness



Picture: World Toilet Museum

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(Unesco, World Science Report 1998)

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