Incorporating PhD studentship into programmes: Enhanced students' experiences

Learning from the FCDO-RS African Capacity Building Initiative (ACBI)

Background

➢ Enhancing PhD programmes in sub-Saharan Africa remains key to train highly skilled graduates/researchers/ scientists who could solve problems at the national level and contribute to the development of societies.

➢ Yet they are faced by many challenges *(e.g. limited resources, poor supervision quality/capacity and inadequate research tools, infrastructure, and systems to support quality doctoral training programmes).*

➢ One of the programmes CCR is involved in is the **Africa Capacity Building Initiative (ACBI**)

About ACBI

➤ A pilot programme funded by **FCDO & Royal Society (RS)**

➤ Aims to strengthen the research and training capacity of higher education institutions and support the development of individual scientists in sub-Saharan Africa through UK-Africa research collaborations.

➤ Focuses on **3 research areas** (renewable energy; water and sanitation; soil-related sciences)- but the "design" is relevant to other research fields; & our "findings" are similar to those in health topics.

➤ Comprises **10 research consortia** (1 UK & 3 African institutions in each consortium)

➤ ACBI directly supports 30 African scientists and **38 PhD students** from 26 research institutions across 18 sub-Saharan African countries, in collaboration with 10 UK scientists. It indirectly supports many more than this (e.g. research support staff such as laboratory staff; other researchers and students)

➤ CCR is leading the **monitoring, evaluation and learning (ME&L)** component of ACBI. One of the areas we looked into was PhD students' experiences.

How will you benefit from our findings?

➢ **Benefits for research grant applicants**

    ➢ PhD studentships are commonly included in grant applications.

    ➢ Knowing how best to design PhD studentships, what to write in your application and what to budget for, will add substantially to the quality of your proposal.
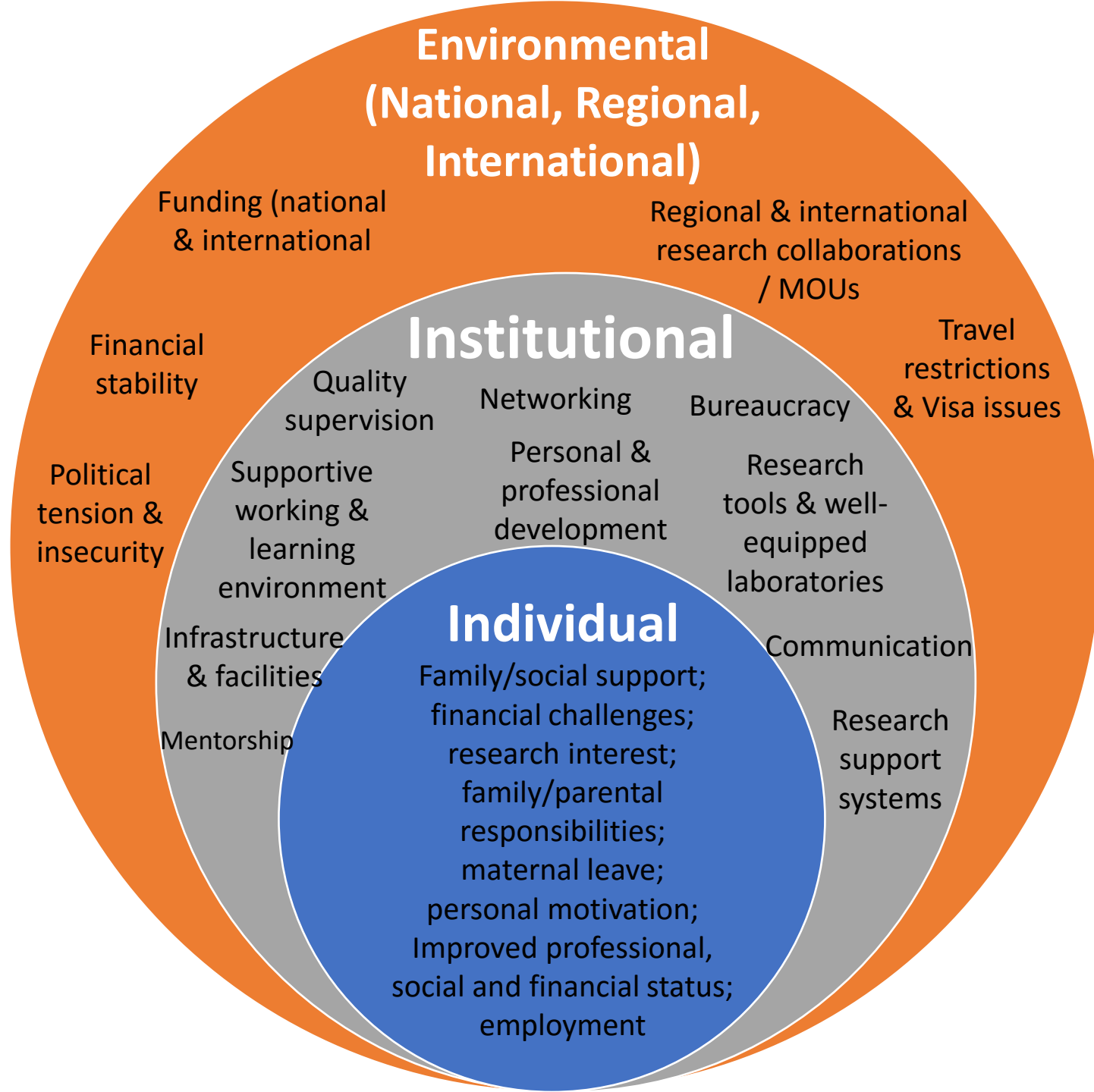
➢ **Benefits for PhD students and their supervisors**

    ➢ Improves understanding of all the factors that can affect the success of a PhD and where in the research systems these factors occur.

    ➢ Knowing in advance where critical problems may arise in PhD progress will help you to plan for, and mitigate them.

    ➢ Understanding where and how problems can arise, and having control over at least some of these, helps to reduce stress and improve the PhD experience.

Take 5 minutes to think about:

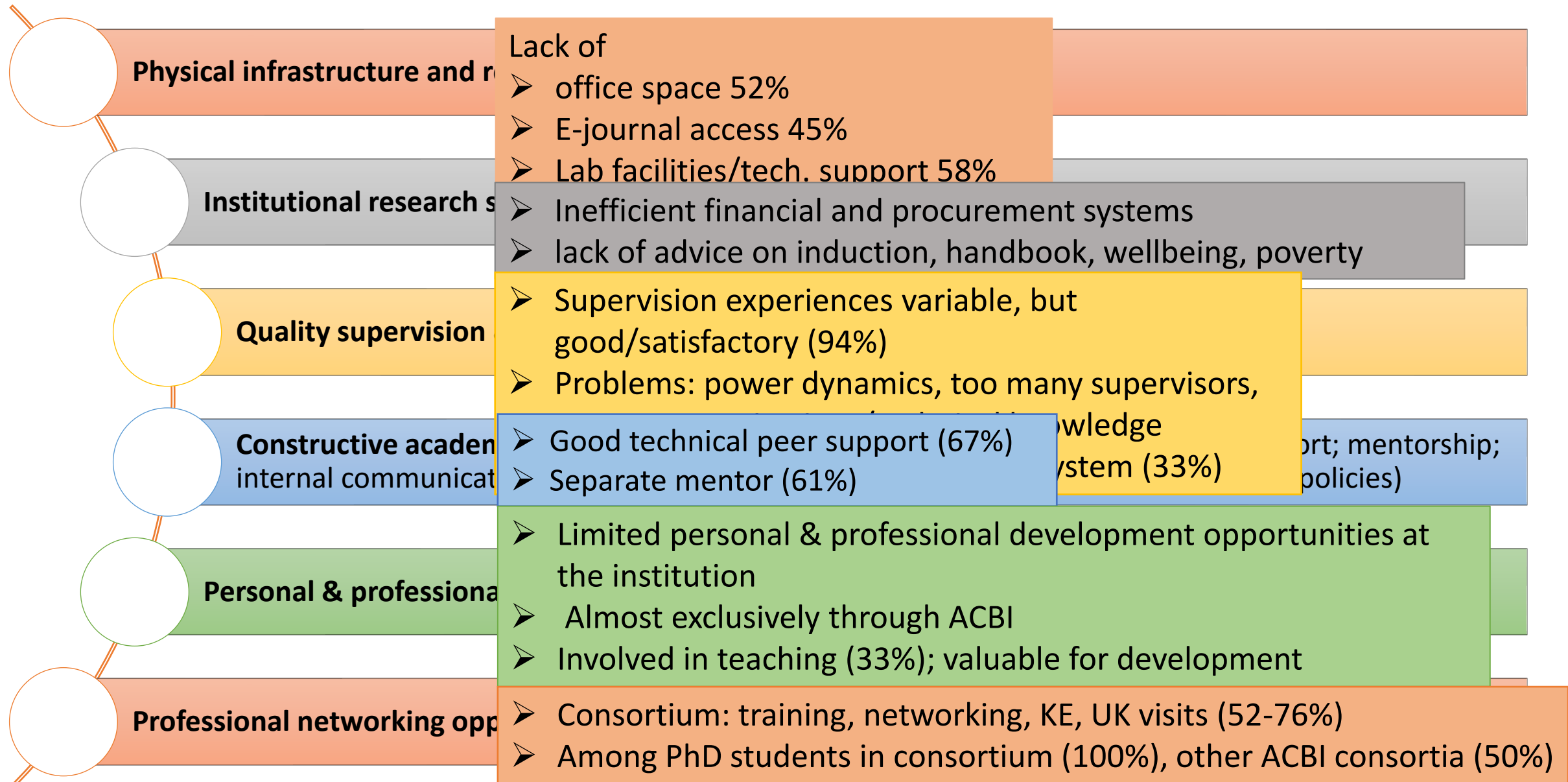What are some of the factors that could influence PhD students' progress and overall experience?

And at what level are these factors demonstrated? E.g.

- individual level

- institutional level, or

- national/environmental level

Environmental (National, Regional, International)
Funding (national & international
Regional & international research collaborations / MOUs
Financial stability
Political tension & insecurity
Travel restrictions & Visa issues

Institutional
Quality supervision
Networking
Bureaucracy
Supportive working & learning environment
Personal & professional development
Research tools & well-equipped laboratories
Infrastructure & facilities
Mentorship
Communication
Research support systems

Individual
Family/social support; financial challenges; research interest; family/parental responsibilities; maternal leave; personal motivation; Improved professional, social and financial status; employment

Findings from the ACBI reveal that key factors influencing PhD progress were mostly **at the institutional level** (i.e. this is the area that requires most improvement and capacity strengthening).

Institutional level

Physical infrastructure and r...

Lack of
- office space 52%
- E-journal access 45%
- Lab facilities/tech. support 58%

Institutional research s...
- Inefficient financial and procurement systems
- lack of advice on induction, handbook, wellbeing, poverty

Quality supervision
- Supervision experiences variable, but good/satisfactory (94%)
- Problems: power dynamics, too many supervisors, ...knowledge ...system (33%)

Constructive academ...
internal communicat...
- Good technical peer support (67%)
- Separate mentor (61%)
...ort; mentorship; ...policies)

Personal & professiona...
- Limited personal & professional development opportunities at the institution
- Almost exclusively through ACBI
- Involved in teaching (33%); valuable for development

Professional networking opp...
- Consortium: training, networking, KE, UK visits (52-76%)
- Among PhD students in consortium (100%), other ACBI consortia (50%)

Environmental level (National/Regional/ International)

Research funding & financial sustainability
- Lack of national/ governmental funds for research
- Struggle to compete for international funding

Political tension
- Social and political unrest

Immigration/ visa issues
- Affect learning/visits/resource access

In the context of ACBI- the research consortia mostly played a positive role in bridging the capacity gaps at the institutional level

Role of ACBI in enhancing PhD students' experiences

Infrastructure/ research facilities

- **Purchase of new equipment and research instrumentation** (more than 80% reported purchased equip)/ deemed **beneficial to the local institution/ department** (led to changes in lab capacity)
- **Exchange visits** to UK and African institutions
- **Improved access to scientific resources:** Ability to access additional literature/research papers from journals that host university is not subscribed to; access to UK university library during exchange visits.
- Overall, **33% of the students** (n=11/33) **reported observing changes around the infrastructure and learning environment** that impacted on student's PhD programme

Institutional research support systems

- Research consortia **processed funds** (including stipend payments), facilitated **procurement of equipment**, and **paid for travel arrangements through a UK or different African institution** to avoid payment interruptions and delays.
- **Improved financial administration and procurement in some institutions** such as improved turnaround of funding claims.

Quality supervision & monitoring research progress

- **Guidance & advice from a range of world-class experts and supervisors** with various expertise and research skills (supervisory panels at the consortium level)
- **Fostering monitoring progress at the consortium level**

Personal & professional development

- **Technical & generic training**
- **Exchange visits (**learn about new techniques, and use state-of-art equipment unavailable in their home country).
- **Presenting at scientific conferences and meetings** – enhancing their self confidence and communication skills (opportunity to travel and learn about new cultures)
- **Improved English language skills** among Francophone students
- **Colleagues, students, and technicians outside the ACBI grant have benefited** from the ACBI-funding training programmes

Constructive academic environment/ research culture

- Whilst this is mostly institutional, ACBI provided a **supportive environment** for students mainly at the consortium level & **fostered/ encouraged networking and collaboration between PhD students and their supervisors**.
- **Scientific exchange of ideas**, informal discussions, general advice and problem solving

Professional networking opportunities

- **Receiving academic and professional support, advice and problem solving**
- **Building a sense of solidarity through South-South collaborations**
- **Fostering research outputs** (joint publications, support with scientific and academic writing)
- **Encouraging future academic collaborations beyond ACBI**

In Summary….

➢ Programmes such as ACBI that involve external partnerships are fundamental in fostering:

- high quality research and research outputs
- personal/professional relationships within and beyond the programme
- access to world-class experts and supervisors
- self confidence and communication skills (including English language)
- solidarity through South-South collaborations
- personal and professional development
- future academic collaborations beyond the programme

➢ The programme students considered themselves advantaged compared to other PhD candidates in their department/school (89%)

➢ Knock-on benefits for non- programme researchers/students/technicians

Doing better: consortia

➢More focus on planning and management from the start

➢Improve communication and transparency re budget and reporting

➢Enhance support for PhD students

- Limit number of supervisors for each PhD student
- Assign external mentor (independent- outside department and consortium)
- Support/ encourage healthy and constructive relationships between supervisors and the research team
- Conduct training needs assessment for each student; include leadership and management skills
- Spend up to 3 months at a UK university
- Provide language support for non-English speakers

Doing better: institutions

➢ Administrative, financial and procurement systems for research

➢ Professional development and career progression for researchers/<u>laboratory staff</u>/<u>research support staff</u>

➢ Improve supervision quality and monitoring of progress for PhD students

➢ Ensure a constructive working environment and a supportive research culture

➢ Highlight post-doctoral opportunities

Doing better: funders/programme managers

➢Equity and transparency in determining student stipends

➢Better communication about grant conditions and finances (e.g. health insurance)

➢Need to balance compensation for African (co)PIs against students' stipend (impacts relationships)

➢Encourage formalisation of, and check adherence to, the roles and responsibilities of students/ supervisors/ PIs including complaints and safeguarding reporting mechanisms

➢Encourage strengthening of PIs, Co-PIs, and supervisors' skills (e.g. supervision, management)

➢Establish alumni network for future collaborations among researchers and for sharing funding opportunities.

Comments/ Questions/ Reflections

➢ Developing projects allied to programme workstreams

➢ How Ph.D. students can enrich their research skills and expand their research networks during their program.

➢ Balancing PhD learning outcomes and planning for research independence after the PhD

➢ Balancing intellectual exploration with programmatic deadlines/restrictions

➢ How PhD research design can be embedded into a research project design?

➢ How will my PhD work progress into project that will benefit the community in which I am working with.

➢ This would be very helpful and timely as we are about to recruit a PhD student as part of the project I'm leading

➢ Strategies to help find a good balance for PhD candidates who are working on a project and doing a PhD.

➢ How to transition from the PhD to a post doc or to further work."