Final results of the ASM-EPFL Joint Research Project

“Connecting the scientific diaspora of the Republic of Moldova to the scientific and economic development of the home country”

Dr. Gabriela Tejada
Project Leader, CODEV-EPFL

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Joint Research Project

“Connecting the scientific diaspora of the Republic of Moldova to the scientific and economic development of the home country”

• Partners:
  - Department of European Integration and International Cooperation - Academy of Sciences of Moldova (DECI – ASM)
  - Cooperation and Development Center - Ecole Polytechnique Fédérale de Lausanne (CODEV - EPFL)

• Funding:
  SCOPES Programme of the SNF - SDC

• Duration:
  Three years: 2010 - 2012
Project objectives

Addressing brain drain from the Republic of Moldova capitalising on scientific diasporas’ resources

• To provide an evidence-based analysis on skilled Moldovans abroad and their links with the Moldovan scientific community

• To offer policy recommendations on how to leverage their potential in benefit of Moldova’s socio economic development

• To identify ways of establishing permanent cooperation ties with them
The Moldovan context

- **High emigration rates** (25% of population)
- **Financial remittances**: key driver of economic growth (36% of Moldovan GDP)
- **Brain drain**: MD has been hit hard by the exodus of scientists since the 1990s
- **Human capital** of great value and in good positions abroad

- MD government’s impetus to **capitalise on scientific diasporas’ resources** for home country development
Analytical framework

Analysis based on a structural approach to skilled migration/mobility:

1. Considering both:
   – Individual experiences in host countries
   – Context and opportunities in home country (social, economic and institutional factors)

2. Focusing on factors enabling or hindering the skills’ transfer, and cooperation opportunities with a positive impact.

3. Using transnationalism as the conceptual framework for understanding the links between home and host countries.
Main research questions

Scientists abroad can stay interconnected and have an influence
How to encourage their brain gain interventions?

• What are the **conditions and experiences** of skilled Moldovans in destination countries?
• What are **their profiles and the resources** they offer?
• What **type of links** they maintain with Moldova?
• Which **variables affect their contributions** to Moldova?
• Which are the **necessary settings and conditions** enabling an impact?
Policy oriented objectives

To identify:

1. the interplay between host country settings & home country conditions, and diaspora engagement

2. enabling policies to get skilled Moldovans abroad involved in development

3. policy recommendations for better managing scientific diasporas’ resources

Contributing to evidence based policy making in M & D management
Methodology

• Two primary **on-line surveys:**
  
  – Moldovan scientists and skilled professionals abroad (incl. students)
  
  – Scientific and professional community in Moldova

• **Face-to-face in-depth interviews** with temporary returnees, Moldovans abroad, and key informants.
Survey on skilled Moldovans abroad
Survey on skilled Moldovans abroad

• Target group: “members of the Moldovan scientific diaspora”

• Operational definition: scientists, researchers and skilled professionals from the Republic of MD living abroad, as well as postgraduate students (MA and Ph.D.); in any disciplines and professional areas/sectors

• On-line survey using SurveyMonkey software (mostly closed ended questions but also some open)

• Survey dissemination through various informal and formal contacts

• Follow of selective/convenience sampling

• Total of 197 respondents
Survey on skilled Moldovans abroad

1. Profile overview of respondents
2. Mobility motives and paths
3. Experiences and conditions in destination countries
4. Links with Moldova
5. Development initiatives and impact
6. Future and return plans – Perception of opportunities in Moldova
7. Participation in pro diaspora programmes
1. Profile overview of respondents

• General profile
  – 55% in 26-35 age category
  – 58% women – 42% men
  – 50% married (for 92%, partners live in the same place as them)
  – 40% have children (for 96%, children live in the same place as them)
Educational level

Higher educational degree (n = 191)

- Masters Degree: 52.9% (101)
- PhD: 30.9% (59)
- First university degree (Bachelor): 16.2% (31)
2. Mobility motives and paths
Motivation to go abroad

Who has influenced / motivated you to go abroad? More than one option possible
(n=190)

- Yourself (personal motivation): 152
- Friends in Moldova and abroad: 52
- Teachers - supervisors: 34
- Career counselors: 30
- Colleagues: 24
- Relatives: 16
Main purpose to go abroad

- Professional experience: 21%
- Higher studies: 15%
- Scientific advancement: 20%
- Better employment opportunities and income prospects: 12%
- Improve quality of daily life: 7%
- Family reunification: 4%
- Experience that will be valued in Moldova: 4%
Migration determinants

We can observe that:

– **Push factors in MD** are stronger than pull factors abroad

– **Unfavorable environment**, lack of professional opportunities & career prospects, low salaries, limited research infrastructure influence emigration

– **Further training abroad** is a more recent determinant
Length of stay abroad

Year of departure (n=193)
Country of residence

Country of Residence (n=194)

- France: 29%
- USA: 27%
- Switzerland: 6%
- Belgium: 5%
- Germany: 5%
- Romania: 8%
- Others: 20%

Canada, The Netherlands, Sweden, Russia, Italy, Norway, Spain, Ukraine, UK, Denmark...
3. Experiences and conditions in destination countries
Residential status and social integration

What is your residential status in the host country? (n=188)

- Temporary resident status: 54.8% (103)
- Permanent resident status: 23.4% (44)
- Citizenship: 21.8% (41)
Associative activities with Moldovans

How often do you socialize with people from Moldova? (n=171)

- Several times a week: 33.3% (57)
- Few times a month: 33.3% (57)
- Every day: 19.9% (34)
- Less often: 13.5% (23)
- Never: 2.3% (4)

Are you affiliated to any organisation/association concerning people of Moldovan origin in your current country of residence? (n=187)

- No: 67.4% (126)
- Yes: 33.2% (62)
Perception of environment in host country

Given your experiences, how would you rate each of the following qualities in your current country of residence? (n=168)

- Employment/career opportunities
- Income level
- Ease of doing world class level research
- Ease of doing business
- Living environment and amenities (housing, transport, etc.)
- Tolerance towards foreigners
- Possibilities to integrate into the local society
- Possibility to communicate with local people (language-related)
- Social welfare system (schooling, health care, children, day-care facilities)
- Ease of obtaining a residence/work permit

[Bar chart showing ratings for each quality]
Employment situation

What best describes your main activity at the moment? (n=188)

- In paid employment: 70.7% (133)
- In education: 22.9% (43)
- Self-employed: 3.2% (6)
- Unemployed: 3.2% (6)
Employees’ Employer and type of position

**Employer (n=141)**
- Employed in a multinational company: 45%
- Employed in an academic and research institution: 35%
- Employed in a local company/institution: 15%
- Self employed: 5%

**Type of Position (n=129)**
- Permanent employment: 73%
- Temporary employment: 24%
- On secondment (on-site work): 1%
- Consultancy: 2%
Employees’ satisfaction with job

Please rate your satisfaction with your present job for each of the following characteristics (n=120)

- Salary
- Working conditions (i.e., contractual stability, health, workplace)
- Equal opportunities at work as a foreigner
- Infrastructure/research
- Intellectual challenge
- Level of responsibility
- Possibility to improve technical skills
- Possibility to improve communication and networking skills

Color codes:
- green: very satisfied
- orange: somewhat satisfied
- purple: neutral
- blue: somewhat dissatisfied
- yellow: very dissatisfied
Employees’ Employment skills matching

Are you working in your field of specialization / profession? (n=137)
- Yes: 89.6% (122)
- No: 10.2% (15)

Do you feel you are overqualified for your current position? (n=129)
- Yes: 83.6% (107)
- No: 17.2% (22)
Students’ Educational programme

Please indicate the level of the educational programme you are currently enrolled in (n=42)

- First university degree (Bachelor): 29.3% (12)
- Masters degree: 48.8% (20)
- PhD: 7.3% (3)
- Exchange/guest student: 17.1% (7)
Students’ Educational programme and field

Please indicate the field of studies of the programme you are currently enrolled in (n=41)
Students’ Reasons for choosing study destination

Reasons for study destination (top3)

- Prestigious university/professor/study programme in my field
- Scholarship offer
- Wider employment opportunities abroad after graduation
- The culture/lifestyle of this country
- Language of instruction
- Advice of colleagues, fellows or friends
- Affordable cost of tuition
- Accompanying a family member or a partner
- My home university had collaborations with this institution
- Wider employment opportunities in Moldova after graduation
16.7% of them think about achieving their priority plan in Moldova.
4. Links with Moldova
Frequency and means of contacts with relatives and colleagues in MD

The majority of respondents follow often the news about current events in Moldova.
Frequency and purpose of visits to MD

How often do you visit Moldova since you have been in your current country of residence? (n=173)

Purpose of last 3 visits to MD

- Personal affairs (visit family and friends)
- Scientific or academic exchange or engagement
- Sent by my employer
5. Development initiatives and impact
The majority of respondents think scientists and skilled professionals abroad might have an important role in the socioeconomic development of MD.
Possible outcomes/impact in MD

Which of the following outcomes in benefit of MD could be encouraged through your activities abroad? (n=175)
Interest in development of MD and possible impact of their activities

The discussion of our observations indicates that:

– Moldovan scientists abroad feel an attachment to MD through science. They think they can contribute through their scientific activity.
– The same is valid for students through their training and education activities.
– Professionals think they could contribute promoting investments.
– They all think they could help improving MD’s image abroad.
Perceptions of conditions to implement brain gain initiatives

What is your opinion regarding the possibility to implement brain gain activities between skilled Moldovans abroad and key actors in the home country? Do you consider it is easy or difficult to implement them? (n=149)

- 54.4% (81) believe brain gain initiatives are difficult to implement.
- 29.5% (44) are unsure.
- 16.1% (24) believe brain gain initiatives are easy to implement.

Main obstacles:
- Lack of enough funding
- Political instability in MD
- Lack of political interest
- Insufficient infrastructure in MD to host projects
- Lack of recognition of skilled Moldovans’ abroad
Brain gain initiatives implemented

Which of the following initiatives have you ever carried out? (More than one option possible) (n=170)

- Investment and business: 15.3% (26)
- Philanthropic and communitarian activities: 16.5% (28)
- Research project in cooperation with Moldovan partners: 24.1% (41)
- Scientific / academic exchange project: 27.6% (47)
- Knowledge sharing / technology transfer project: 34.7% (59)
Students –
Brain gain initiatives implemented

Which of the following initiatives in benefit of Moldova have you ever carried out? (more than one option possible) (n=38)
Scientists and researchers –
Brain gain initiatives implemented

Which of the following initiatives in benefit of Moldova have you ever carried out? (You can choose more than one option) (n=40)

- Philantropic and commercial activities: 12.5% (5)
- None of them: 15.0% (6)
- Research project in cooperation with Moldovan partners: 50.0% (20)
- Scientific / academic exchange project: 55.0% (22)
- Knowledge sharing / technology transfer project: 57.5% (23)
Professionals –
Brain gain initiatives implemented

Which of the following initiatives in benefit of Moldova have you ever carried out? (You can choose more than one option) (n=89)

- Scientific / academic exchange project: 10.1% (9)
- Research project in cooperation with Moldovan partners: 13.5% (12)
- Philanthropic and communitarian activities: 19.1% (17)
- Investment and business: 22.5% (20)
- Knowledge sharing / technology transfer project: 25.8% (23)
- None of them: 42.7% (38)
Brain gain initiatives implemented

It stands out that:

– **Moldovan scientists and students abroad** have implemented projects related to:
  • Knowledge sharing / technology transfer
  • Scientific / academic exchange

– **Scientists** have implemented research projects in collaboration with MD partners (20 projects)

– **Professionals** have implemented projects related to:
  • Knowledge sharing / technology transfer
  • Investment / business links

– *The incidence of brain gain initiatives implemented is higher for scientists and researchers (than for students and professionals).*
### Brain gain initiatives implemented

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<th><strong>Knowledge sharing</strong></th>
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<td>Knowledge support to local think tanks</td>
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<td>Participation in seminars and/or international conferences</td>
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<td>Sharing scientific knowledge with colleagues working in the same field/topics</td>
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<td>Better understanding of Moldovans problems through PhD topics chosen</td>
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<td>Publication of scientific work in Moldova</td>
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<td>Providing technical advice on key development issues</td>
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<td>Encouragement of R&amp;D activities</td>
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<td>Information on scholarship opportunities abroad</td>
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<td>Sharing of scientific information</td>
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<th><strong>Joint research projects</strong></th>
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<td>Involvement of Moldovan partners in international research projects</td>
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<td>Joint publications in collaboration with Moldovan scientists</td>
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<td>Helping Moldovan scientists to submit proposals for international research grants</td>
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<th><strong>Scientific/academic exchange project</strong></th>
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<td>Temporary visits to research centers and universities</td>
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<td>Share of supporting materials for university courses</td>
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<td>Giving lectures in Moldova</td>
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<td>Co-mentoring Moldovan PhD students</td>
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<td>Participation in the creation of academic programmes and syllabus design</td>
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<th><strong>Investment and business</strong></th>
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<td>Investment promotion projects</td>
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<th><strong>Philanthropic and communitarian activities</strong></th>
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<tr>
<td>Sending books to Moldovan elementary schools</td>
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<th><strong>Other</strong></th>
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<td>Interventions in public administration reform</td>
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6. Future and return plans
Perception of opportunities in MD
Future plans

What do you plan to do in the following five years? (n=158)

- I do not know: 10.1%
- I plan to stay in my current country of residence: 58.9%
- I plan to return to Moldova: 15.8%
- I intend to move to another country: 15.2%
Future plans

Students

Scientists and researchers

Professionals

What do you plan to do in the following five years? (n=80)
Return plans

When are you planning to return back to Moldova (approx.)? (n=55)

- 29.1% (18) within 5 years
- 25.5% (14) within 10 years
- 23.6% (13) in less than 1 year
- 12.7% (7) in more than 20 years
- 5.5% (3) within 20 years
- 1.8% (1) after retirement
- 1.8% (1) I do not know

Do you plan to return to Moldova any time in the future? (n=165)

- 41.2% Yes
- 25.5% No
- 33.3% I do not know

47% of students
35% of scientists and researchers
28% of professionals

Plan to return to Moldova any time in the future
Reasons for planning to move back to MD

Most important reasons for planning your move back to Moldova (top 3) (n=47)

- Better career/employment advancement prospects in MD: 13
- I want to bring up my children in MD: 16
- I want to be with my family and friends in MD: 38
- I want to contribute to MD’s socio economic development: 40
Reasons for not planning to move back to MD

Reasons for not planning to move back to MD (top 3) (n= 39)

- Better employment/career prospects in host country: 35
- I prefer lifestyle abroad: 25
- Better scientific/research opportunities abroad: 19
- I want to bring up my children abroad: 15
- I feel disconnected to MD: 14
- My close relatives live abroad: 5
Perceptions about situation in MD

Please indicate your perceptions about the following issues in Moldova (n=146)

- Business/investment opportunities in Moldova
- Job opportunities in Moldova
- Educational opportunities in Moldova
- Socio economic situation in Moldova
- Security situation in Moldova
- Political situation in Moldova
- Scientific advancement opportunities in Moldova

Legend:
- Orange: Very bad
- Blue: Bad
- Purple: Neither good nor bad
- Red: Good
- Green: Very good
7. Participation in pro diaspora programmes
Institutional pro diaspora programmes/initiatives

Initiatives respondents have heard of (n=153)

- Programme of temporary return of Moldovan scientists working abroad
- Programme PARE 1+1 promoting the use of remittances for investment activities
- Moldovan Annual Diaspora Fair
- Creation of the “Council of Scientists and Prestigious Personalities”
- None
Conclusions on the scientific diaspora (1/2)

• Brain drain of MD is determined by economic factors (*limited employment and income prospects*)

• Skilled Moldovans are professionally well established abroad

• Have strong interest in contributing to MD’s development

• Believe they could have a positive impact through their activities abroad

• Have negative perceptions about socio-economic situation and job opportunities in MD
Conclusions on the scientific diaspora (2/2)

• Some are considering returning to MD in the near future (students)
• Some have implemented brain gain projects and are interested in keeping doing so (scientists)

➢ Call for adequate policies:

*Sustained return and impact of transnational cooperation need to be ensured with an improvement of the structural situation in MD*
Policy recommendations  (1/2)

To enable a positive impact of cooperation with the Moldovan scientific diaspora there is a need to:

1. *Provide support to organised collective action (bottom-up), complemented with pro-diaspora policies (top-down)*

2. *Offer a suitable environment in the home country for validating the knowledge and resources transferred within the local socio economic context*
Policy recommendations (2/2)

3. Secure sustained return and impact of transnational cooperation with the improvement of the local structural situation:

- Committing systematically to science and education
- Creating conditions to ensure good employment opportunities
- Ensuring coherence between higher education programmes and labor market needs
- Enabling the transfer of skills gained abroad upon return (jobs – qualifications matching)
- Ensuring that the scientific research and knowledge transferred become useful for the local society
Contact:

Dr. Gabriela Tejada
CODEV - EPFL
gabriela.tejada@epfl.ch

Mr. Vitalie Varzari
DECI - ASM
varzari.vitalie@asm.md

More information at:
http://cooperation.epfl.ch/ScientificDiasporas
http://international.asm.md/ds.html/