Innovation Policies for Inclusiveness – Policy Cases

Programme to Support the Research Activities of Female Researchers

Country: Japan

1. Short Description

The ***Programme to Support Research Activities of Female Researchers*** aims to increase the number of women in research, improve their research skills and support their appointment to leading positions. To this end, the programme provides funds to universities and research institutions to develop and implement plans to improve the research environment for women. Its goal is to enable female researchers to balance family life with research and use their abilities to the fullest potential.

This policy profile is part of a policy toolkit on innovation policies for inclusiveness. It is relevant for social inclusiveness.

2. Policy Characteristics

Basic Information

Country and implementing institution(s):	**Timeline:**
Japan Ministry of Education, Culture, Sports, Science and Technology (MEXT)	2006 to present (as of December 2016) (In 2015, the programme name changed to "Initiative for the implementation of research environment diversity")
Target group	**Size and budget:**
Groups (female researchers) The programme targets female researchers, as this group is under-represented in research, disadvantaged in career terms due to family duties and has less access to leading positions.	The number of recipients varies per year. In 2015, seven individual organisations and five collaborations were selected. In 2014, six individual organisations and four collaborations were selected. The total number of individual organisations until 2015 was 102 and the number of hubs/collaborations was 18. The budget varies each year. In 2015, the total budget was JPY 1 088 million (USD 10.56 million, PPP). In 2014, it was JPY 984 million (USD 9.4 million, PPP)
Type of policy instrument(s)	**Inclusiveness focus**
Financial support to the organisations **Non-financial support:** awareness raising	**Social inclusiveness**

Policy objectives

The programme aims to **increase the number of women in research, improve their research skills and support their appointment to leadership positions**. To this end, the programme provides funds to universities and research institutions to develop and implement plans aimed at improving the research environment for women. Its goal is to enable female researchers to balance family life with research and use their abilities to the fullest potential.

This objective is in line with general governmental policy goals. The Third Basic Plan for Gender Equality (2010) includes the goal of "increasing the share of women in leadership positions to at least 30% by 2020 in all fields in society". More recently, the Fifth Science and Technology Basic Plan (2016-2020) includes the goal of achieving a hiring rate of 25% of female researchers in the natural sciences (20% in science, 15% in engineering, 30% in agriculture and 30% in health).

Rationale

The proportion of women researchers in Japan is very low compared to other OECD countries. Although the percentage of women among all researchers has increased gradually to 14.4%, the corresponding rates in OECD countries are estimated to be two to three times higher than that of Japan.

In addition, female researchers are concentrated in a limited range of fields, such as nursing, home economics and humanities, and accounted for only 9.2% of all researchers in engineering and 13% of those in sciences in 2012. Even in fields that have higher percentages of female researchers, the proportion of women decreases the higher the position.

Policy target recipient and selection mechanism

The programme targets female researchers, as this group is under-represented in research, disadvantaged in careers terms due to family responsibilities (e.g. childbirth, childcare and care of elderly relatives), and has lower access to leading positions.

To be eligible, organisations need to be a university, an Inter-University Research Institute or an Independent Administrative Institution (in the fields of science, engineering, agriculture and health, or a mix of those with humanities and social sciences). Since 2015, hubs/collaborations must include at least one of the above-mentioned public research organisations, and at least two other types of organisations (a public interest incorporated association and a private firm).

Applicants need to present a six-year action plan, including goals and measures to be implemented to support women researchers. Such support includes measures to improve their research skills and promote their access to leadership positions.

Each year, an expert panel selects individual institutions and collaborations on a competitive basis. The panel evaluates the applications in terms of the following:

- The validity of the goals of the plan (e.g. number or rate of women researchers expected to be hired each year, number or rate of women researchers resigning each year, and the expected achievements of women researchers).

- The validity and efficiency of the plan. This includes determining which measures will be implemented to achieve the stated goals and improve the research environment for women (e.g. number of support personnel hired, characteristics of awareness-raising campaigns to be implemented, etc.), expected continuity after the end of the funding period and budget management.

Policy instrument(s)

Direct financial support to develop and implement plans: The programme provides funds to individual organisations (universities and research institutions), as well as organisational hubs and collaborations (involving universities, research organisations and private enterprises), to develop and implement plans aimed at promoting the activities of female researchers and supporting their efforts to achieve a work-life balance, so as to allow them to make use of their abilities to the fullest extent possible.

Funding varies each year. In 2015, allocated funding was up to JPY 30 million (approx. USD 283 000, PPP) for individual organisations and up to JPY 60 million (approx. USD 565 000) for hubs/collaborations. In 2014, allocated funding was up to JPY 22 million (approx. USD 210 000) for individual organisations and up to JPY 20 million (approx. USD 191 000) for hubs/collaborations. Prior to 2015, the implementation period generally lasted three years. From 2015 onwards, the implementation period was six years, although funding is provided for the first three years (four years in some cases, following a favourable evaluation).

Plans for individual institutions may include the following measures:

- Allocate managers, co-ordinators and counsellors to assist female researchers in tackling common problems that typically discourage female researchers from continuing their research activities.
- Provide researchers (regardless of gender) with assistants during specific "life events" (e.g. childbirth, childcare, care of elderly relatives), to enable them to balance research with personal responsibilities.
- Establish flexible employment arrangements, including flexitime, job sharing and part-time work.
- Set up a support mechanism for researchers resuming work after a leave due to a life event.
- Provide childcare services.
- Raise awareness about the need for women in leading positions.
- Provide career advice and encourage female students to pursue an academic career.

Plans for hubs and collaborations may include the following measures:

- Promote efforts to help female researchers strengthen their research skills despite work-life issues, and allocate dedicated staff to achieve this goal.
- Encourage the promotion of female researchers to leading positions at participating organisations.

- Upgrade facilities (childcare, counselling rooms).
- Support ambitious career goals for female researchers.
- Enable female researchers to return to work after a life event (e.g. childbirth).

Awareness-raising activities: the "Promoting Role Models to Support Female Researchers" initiative promotes research careers for women in science, technology, engineering and mathematics (STEM) in high schools and colleges, through promotional materials and events allowing girls to meet female senior staff in research positions. The initiative was launched as a standalone programme in 2006 and became part of the "Programme to Support the Research Activities of Female Researchers" in 2011.

Policy challenges

- The measures are likely to have a relatively modest impact in the short term, as time and continued policy action are necessary to change social customs.
- Organisations in scientific and technological fields encounter difficulties in recruiting female researchers because they receive few applications from competent woman researchers.
- Employment in tenured or leading roles is difficult, as national universities have implemented reductions in employee numbers.
- Both male and female researchers hold negative opinions about positive discrimination for women, although both agree on the need to support women during specific life events (e.g. child birth, childcare, care of elderly relatives).

Actions undertaken to address challenges

No information available.

Evaluation and outcomes of the scheme

Organisations need to report on their actions and the results of measures implemented each year. (Since 2015, organisations must submit reports over six years, even if funding is provided only for the first three to four years.) Results include changes in the number and ratio of female researchers in the respective institution.

Since the beginning of programme implementation in 2006, the turnover rates for female researchers in Japan have decreased. Resignations among female researchers in individual organisations implementing (or that had previously implemented) the programme have also decreased from an average of 34 in 2005 to 10.1 in 2011. This has contributed to an increase in the total number of female researchers in those organisations (reaching 9 487 in 2011 up from 7 154 in 2005). The programme also helped to improve the performance of female researchers during specific life events (e.g. child birth, childcare). Supported researchers published 2.31 papers per year on average, while overall researchers (including men) produced on average 0.63 papers per year. The ratio of women in Japan who chose a research career in STEM

has also increased. However, Japan still has relatively few women in research, in comparison to most European countries and the United States. Moreover, there has been little progress in the appointment of female researchers to leading positions.

Sources

EC/OECD (2014), *International Science, Technology and Innovation Policy (STIP) Survey and Database*, edition 2014, www.innovationpolicyplatform.org/sti-policy-database.

JST (2015), "ダイバーシティ研究環境実現イニシアティブ（旧女性研究者研究活動支援事業）" [Diversity research environment realization initiative (former female researcher research activity support project)], Japan Science and Technology Agency , Tokyo, www.jst.go.jp/shincho/koubo/27koubo/27jinzai.html#josei.

JST (2014)," 「女性研究者研究活動支援事業」一般型・拠点型、「女性研究者養成システム改革加速事業」 プログラム内容、成果と課題（人材委員会（第 65 回） 配付資料 4）", ["Female researcher research activity support project", General type/base type, "Female researcher training system reform acceleration project", Programme contents, outcomes and issues (Human Resources Committee (65th) Delivery Material 4)], Japan Science and Technology Agency, Tokyo, www.mext.go.jp/b_menu/shingi/gijyutu/gijyutu10/siryo/__icsFiles/afieldfile/2014/08/18/1350742_04.pdf.

JST (2013), "Program to Supporting Research Activities of Female Researchers", Japan Science and Technology Agency, Tokyo, www.jst.go.jp/shincho/josei_shien/en/program.

Background

*This document is part of a repository of examples of **innovation policies that have for explicit aim to contribute to territorial, industrial and social inclusiveness.** The repository is part of an innovation policy toolkit developed for the **Innovation for Inclusive Growth** project and gathers national innovation policy programmes that:*

- ***A.*** *Explicitly target **lagging and less innovative regions** (outside of regions that are highly innovative) or by design are more likely to support these lagging / less innovative regions.*
- ***B.*** *Explicitly aim to include in innovation activities **individuals and groups that are not usually participating** in those activities and in support of broadening the group of innovators.*
- ***C.*** *Explicitly aim to foster innovation activities in non-innovative firms, in particular by targeting **non-innovative sectors and non-innovative Small and Medium-sized Enterprises (SMEs).***

Policies are searchable by inclusiveness type, objective and implementation challenge on:
https://innovationpolicyplatform.org/inclusivetoolkit