

# **Pakistan Academy of Sciences**

## **“SCIENTIFIC ADVICE TO THE GOVERNMENT” – UNIT**

### **( PAS SAG-Unit / Policy Unit )**

#### **ABOUT THE ACADEMY**

The **Pakistan Academy of Sciences-PAS** (established in 1953) is the supreme scientific body in the country. It consists of **highly distinguished and rewarded scientists and academicians** who are inducted as Fellows of the Academy through specific criteria and approval of the PAS Council and the PAS General Body. The salient objectives of the Academy are: (i) to promote higher studies and research in pure and applied sciences in Pakistan; (ii) to provide a platform for interaction among Pakistani and foreign national academicians, scientists and technologists to carry out innovative research at the frontiers of science and technology as per international norms of productivity and originality; (iii) to facilitate a forum for dissemination and exchange of scientific knowledge through conduct of workshops, conferences, seminars programs, etc.; and (iv) to provide a forum for interaction among academicians, scientists, technologists, industrialists, government officials and technocrats to develop strategic reports and policies for scientific and socioeconomic development in the Country.

#### **ABOUT FELLOWS AND MEMBERS OF THE ACADEMY**

Presently, the PAS has some 81 Fellows (Pakistan National) in addition to 33 foreign Fellows and 23 young Pakistani academicians as Members of the Academy. They all have excelled in their respective fields and are well recognized by the Government of Pakistan. As such, these Fellows and Members act as a pool of the highest scientific talent in the country. Till to-date, the Academy Fellows are holders of **3 Nishan-i-Imtiaz, 14 Hilal-i-Imtiaz, and 34 Sitara-i-Imtiaz** apart from many other Fellows decorated with **Pride of Performance and Tamgha-i-Imtiaz**.

#### **GOP CONFERRED “CONSULTATIVE AND ADVISORY STATUS” TO THE PAKISTAN ACADEMY OF SCIENCES in 1962**

In 1962, the Ministry of Education and Scientific Research (GoP) entrusted the Pakistan Academy of Sciences (PAS) with **“Consultative and Advisory Status”** on “all problems relating to the development of scientific effort in the country”, and “generally on such matters of national and international importance in the field of science as may be referred to the Academy” [Ref. Sec. to Government Office Order No. 1438-SE&SR/62 dated 04 May, 1962 issued by Mr. S.M. Sharif, Secretary to the Government, Ministry of Education and Scientific Research and addressed to Dr. M. Raziuddin Siddiqui, President, Pakistan Academy of Sciences]. This letter is reproduced in the following section for information of the reader.



## The Government of Pakistan Order conferring Advisory Status to the Academy.

No. D-1438-SE&SR/62  
Government of Pakistan,  
Ministry of Education,  
Rawalpindi  
4<sup>th</sup> May, 1962

From:  
S.M. Sharif Esq.  
Secretary to the Government of Pakistan

To:  
Dr. M. Raziuddin Siddiqi  
President, Pakistan Academy of  
Sciences, c/o Sind University,  
Hyderabad

Sir,

I am directed to state that the Government of Pakistan has been giving the Pakistan Academy of Sciences an annual grant with effect from 1953-54 in recognition of the role of the Academy as the *consultative agency* to the Ministry of Education and Scientific Research on all problems relating to the development of scientific effort in the country.

2. Constituted as your Academy is of eminent scientists who have won recognition for their outstanding contribution to the advancement of science and promotion of research, Government expects the Academy to advise generally on such matters of national and international importance in the field of science as may be referred to the Academy.
3. Your Academy, inter-alia, lists the following programmes of work:
  - (i) Publication of Proceedings, journals, memoirs, monographs, transactions and other literature of original nature in the various sciences.
  - (ii) Award of grants, scholarships, fellowships, prizes and medals for scientific research.
  - (iii) Establishment and maintenance of libraries, laboratories, museums and research institutes for different branches of sciences.
  - (iv) Cooperation and liaison with other academies, learned bodies and scientific organizations and institutions with-in the country and outside.

I am to request that the Ministry may be kept informed from time to time of your publications and other activities.

4. It is understood that your Academy has set up its own office and library, and will soon be expanding its construction programme.
5. In conclusion, I am to express the hope that, in addition to the grant paid to the Academy annually, your Academy would be able to raise funds from other sources to enable you to carry out the activities and perform the functions mentioned in the aims and objects of the Academy.

I have etc.,

S.M. SHARIF



## The Government of Pakistan Order Conferring Advisory Status to the Pakistan Academy of Sciences

Since then, the Pakistan Academy of Sciences (PAS) has worked on compilation of policy related documents in the domains of Research and Development, Energy, Biotechnology, Water, Health and Medicine, Environmental Management, Climate Change, Food and Agriculture, etc. as

well as review/recommendations for upgradation of various National Science Policies such as those listed below:

1. Joint Panel Discussions on National Science Policy I. Food, Agriculture & Minor Forest Industries (25-27 Jan, 1975) by PAS and National Science Council
2. Joint Panel Discussions on National Science Policy II. Mineral Resources (25-27 Jan, 1975) organized by PAS and National Science Council
3. Joint Panel Discussions on National Science Policy VI. Health and Medicine (25-27 Jan, 1975) organized by PAS and National Science Council
4. Joint Panel Discussions on National Science Policy VIII. NUTRITION (25-27 Jan, 1975) organized by PAS and National Science Council
5. International Conference on Management of Environment, Feb. 17-19, 1975, Part I, Proceedings and Recommendations, Pakistan Academy of Sciences, Islamabad
6. Proceedings of Seminars and Policy Briefings on Environmental Pollution and Climate Change, 21-22 October, 1991 (A Brief Report), sponsored by Climate Institute, Washington, D.C.; Pakistan Academy of Sciences; Pakistan Atomic Energy Commission; and Pakistan Council of Scientific and Industrial Research (1994).
7. Research and Development in Pakistan, Review (1947-89) and Future Perspective, by PAS and PCST (1991-92).
8. **Pakistan's Energy Crisis - Recommended Solutions (2012)**. This report is authored by PAS in association with the Corporate Advisory Council, National University of Sciences and Technology (NUST) at the Platform of Pakistan Academy of Sciences. The report provides a number of recommendations to combat the Energy Crises in Pakistan. The softcopy of the report is available on PAS Website:  
[http://paspk.org/book\\_path/e2be413fEnergy%20Report-001-003.pdf](http://paspk.org/book_path/e2be413fEnergy%20Report-001-003.pdf)
9. **Biotechnology in Pakistan: Status and Prospects (2014)**. This report is authored by a PAS Fellow, Prof. Dr. Kauser A. Malik (FPAS), the report highlights the status of biotechnology in Pakistan and points the way to what must be done in the future to apply biotechnology for improved crop production in the country for agricultural and socioeconomic development. The softcopy of the report is available on the PAS Website:  
[http://paspk.org/book\\_path/e2be413fEnergy%20Report-001-003.pdf](http://paspk.org/book_path/e2be413fEnergy%20Report-001-003.pdf)
10. **Water Security Issues of Agriculture in Pakistan (2019)** (Editors: Prof. Dr. Riaz Hussain Qureshi and Dr. Muhammad Ashraf, ISBN:978-969-8223-27-4 (2019)). This book published at PAS Platform provides a comprehensive overview of the status of water security issue in Pakistan and presents a way forward to secure water for agriculture in Pakistan. As such, it may be used as reference for documentation of water policy related reports, etc.

## **CREATION OF SCIENTIFIC ADVICE TO GOVERNMENT (SAG)-UNIT / POLICY UNIT AT PAKSTAN ACADEMY OF SCIENCES**

In Pakistan, there is a felt gap between challenges being faced by the country and the policy response to these challenges. During the year 2020, the Planning Commission/ Ministry of Planning Development and Reform (GoP) approved the PC-I based development project of the Academy titled: Upgradation and Capacity Building of Pakistan Academy of Sciences (Natural and Social Sciences) as PSDP Project# 302 for a duration of 3 years. This project bears provision of a total grant of Pak Rs. 810.272 M to the Academy through Higher Education Commission (HEC), Islamabad. Above in view, through the PSDP Project, the Pakistan Academy of Sciences **offered** creation of a Scientific Advice to the Government (SAG)-Unit/Policy Unit at the Academy Secretariat in Islamabad to facilitate compilation of impartial policy reviews/recommendations for upgrades of existing policy documents of various ministries/institutions of the Government of Pakistan and /or fresh policy documents on issues and concerns as referred to the Academy by the government of Pakistan from time to time. Accordingly, an appreciable financial share of the PSDP Project#302 has been allocated for creation of offices, ITC related infrastructure for officials of the Policy Unit, salary component for Policy Unit related human resource and Honorarium/Travel Allowances for the Members of the Advisory Committee for the Policy Unit.

The idea behind **creation of Scientific Advice to the Government Unit or Policy Unit** at the Pakistan Academy of Sciences was initially floated by Dr. Athar Osama, the then **Member Science of the Planning Commission** in Jan., 2019 before the Pre-CDWP Meeting for the PAS/HEC PC-I titled: Upgradation and Capacity Building of Pakistan Academy of Sciences. It was considered as a new developmental initiative for the Pakistan Academy of Sciences to strengthen exchange/sharing of the scientific thought(s) among a knowledgeable active pool of Fellows & Members of the Pakistan Academy of Sciences and the experts/technocrats working within various ministries of the GoP to **develop viable strategies/policies** for scientific, educational, technological, industrial, and agricultural development, etc. leading to socioeconomic development in this country. This concept was profoundly welcomed by the Pakistan Academy of Sciences in line with its aims and objectives. In March 2020, the Planning Commission approved the above mentioned project as PSDP Project # 302. Under this project, the Pakistan Academy of Sciences has established a “Scientific Advice to the Government (SAG) Unit”/Policy Unit of experts for provision of scientific advice to the government, in preparing policy documents on issues of national interest and concerns as and when required by the Government of Pakistan in line with the national Sustainable Development Goals (SDGs).

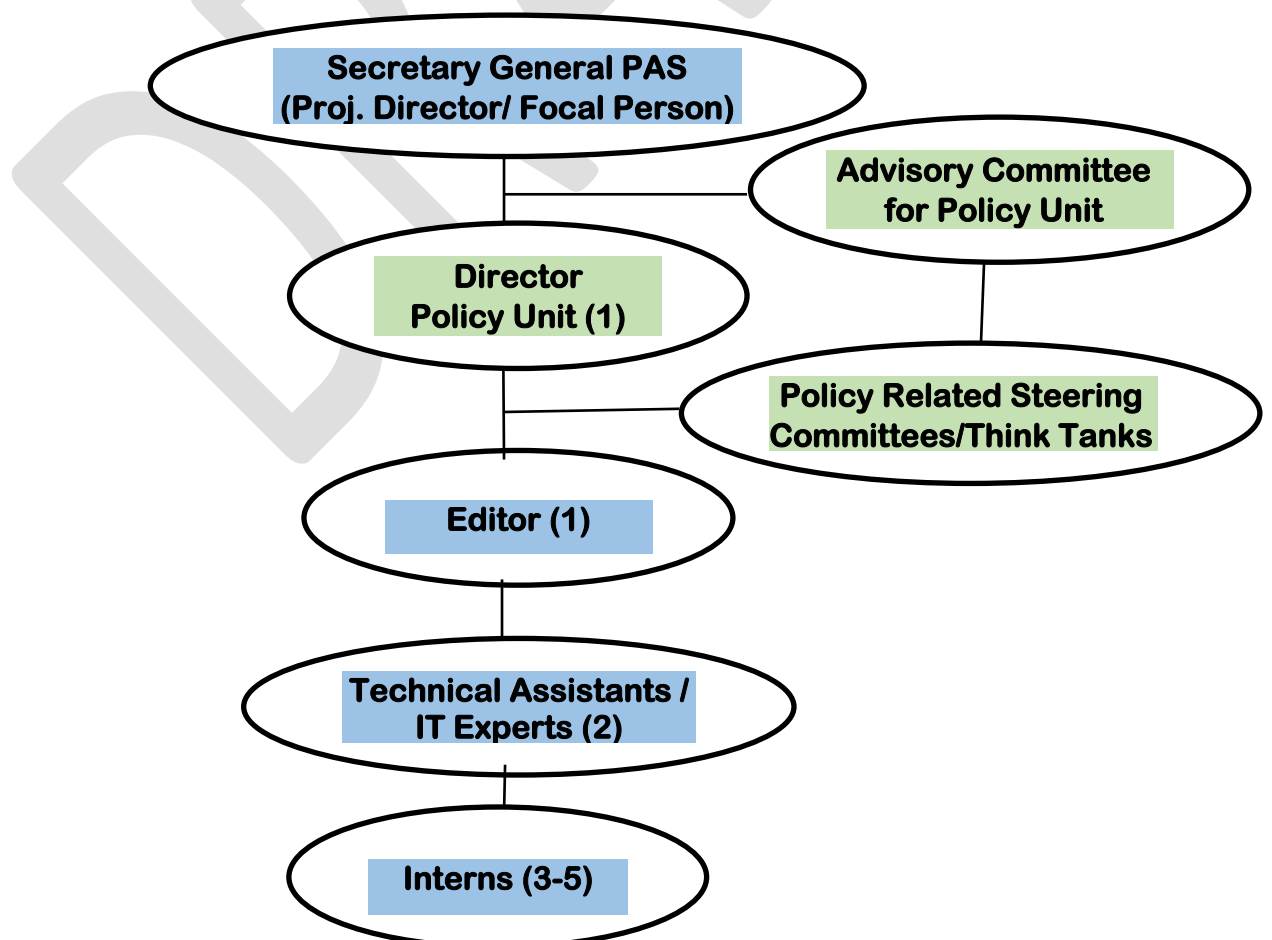
The “**Scientific Advice to the Government Unit (SAG-Unit)/ Policy Unit**” comprises of four furnished offices (occupied by experts, resource persons, and interns) which are equipped with working desks, state of the art advance level computing, printing and scanning facilities, internet facilities, etc. A

versatile “Video Conferencing Facility (Capacity: ~30-35 participants)” is also associated with the Policy Unit. The outputs of the “SAG-Unit/Policy Unit” will be about 5-6 “Policy Briefs/Outputs” per year on issues of vital national concern to be indicated/assigned by the Government. The SAG Unit/Policy Unit will initially focus on review/development of Policy Documents related to Science-Technology and Innovation, Educational Reforms, Conventional and Renewable Energy, Industrial Growth and its Linkage with Academia and Scientists, Science Diplomacy & International Affairs, Peace and Security, Ethics for Socioeconomic Development, Water Security, Preservation of Clean Drinking Water Resources, Small and Large Dam Safety Issues, Agriculture Security, Food Security, Environment and Climate Change, Clean Air, Sustainable Management for Flood Controls, Disaster Management, etc. for the stability and prosperity of Pakistan. As such, the creation of Scientific Advice to the Government Unit / Policy Unit at the Academy will certainly strengthen the capacity of the Academy to provide high quality scientific advice and policy documents to the GoP on matters of national concern and to perform projects related to cutting edge research for industrial and socioeconomic development in Pakistan.

**ORGANIZATIONAL STRUCTURE OF THE PAS POLICY UNIT / SAG-UNIT**

The organizational structure and work flow schematics of the PAS Policy Unit/ Scientific Advice to Government Unit (SAG-Unit) is as following:

**Organizational Structure of PAS Policy Unit / Scientific Advice to the Government (SAG)-Unit**



Detailed Terms of Reference (ToRs) of various organizational pillars of the PAS Scientific Advice to Government Unit / Policy Unit are as following:

**(a) Secretary General Pakistan Academy of Sciences**

Being the Director of PSDP Project#302, the Secretary General PAS serves as the Focal Person of the project and is responsible to steer the overall functioning of the PAS Policy Unit.

**(b) Advisory Committee (AC) for the Policy Unit**

An Advisory Committee (AC) comprising of five (5) eminent local and/or foreign scientists (qualified policy researchers with relevant experience to help Governments understand and utilize scientific advice) is to be constituted by the President Pakistan Academy of Sciences (PAS) for management, supervision, monitoring and timely execution of workflow w.r.t. tasks of the “Scientific Advice to Government Unit/Policy Unit”. The Members of Advisory Committee will help the PAS Policy Unit to understand and utilize scientific advice during the course of project execution and beyond (if necessary). The main objectives of the Advisory Committee include the following: (i) to advise the President PAS and the Director SAG-Unit/Policy Unit on establishing processes and norms for the operation of the Policy Unit; (ii) to facilitate scientific advice for the compilation and review of policy documents; (iii) to play a vital role in the review of existing policies and/or developing new policies in line with national Sustainable Development Goals (SDGs) and to ensure outputs of the SAG-Unit in terms of compilation/review/up-grade appear to be ~5-6 “Policy Briefs” per year on issues of national concern as desired by the GoP; and (iv) to assure proper documentation of the scientific advice and provision of the same to all stake-holders.

**(c) Director Policy Unit**

The Director of the “SAG-Unit” (with ideally, a Ph.D degree and having science policy credentials) is mainly responsible to steer the functioning of the SAG-Unit/Policy Unit in close coordination and collaboration with the Advisory Committee Members and the Policy related steering Committee Members/Think Tank. His typical assignments include the following: (i) to establish links with various Ministries/ Establishments of the GoP in matters related to Policy Documentation; (ii) to supervise the manpower and overall activities and functioning of the Unit for “Scientific Advice to the Government”; (iii) to ensure outputs of the HR program of the “Scientific Advice to Government (SAG-Unit” as compilation/review/up-grade of about 5-6 “Policy Briefs” per year on issues of national concern as desired by the GoP **[Note: Presently, the Director Administration, PAS (having multiple science background and experience of scientific documentations/management) is temporarily facilitating/steering work related to the Pas Policy Unit till appointment of Regular Director Policy Unit].**

The Director Policy Unit is also responsible to initiate, steer and look after the following tasks in coordination with Editor Policy Unit and the Steering Committees of various policies of interest to the Policy Unit:

- Collaborate/Coordinate with the Members of Advisory Committee (AC) for PAS-Policy Unit as well as Dir. Admin-PAS to identify matters/issues of national concern for compilation of relevant policies.
- Supervise the overall activities and functioning of the three sub-groups of the “Scientific Advice to the Government-Unit” in coordination with Director Admin (PAS).
- Assure compilation of about 5-6 policy documents per year by each sub-Group of the Policy Unit.
- Facilitate the “Scientific Advice to the Government-Unit” in matters related to timely compilation, editing, printing/ publication of scientific policy documentations assigned by PC-I related Project Director/Dir. Admin as outputs of the SAG-Unit.
- Facilitate colleagues in Policy-Unit in drafting Emails and Letters in coordination with Director Admin (where needed) for support & coordination from Governmental Organizations/ Institutions/ Establishment and NGOs in matters related to scientific policy documentations.
- Organize webinars, meetings, workshops, forums and discussion groups to promote debate and dialogue for improvement in existing/revised draft policy documents
- Organize training programs in collaboration with Policy Wings of various Ministries of GoP and NGOs for capacity building of stake holders related to revision, improvement of policy documentations and/or compilation of afresh/new policy documents.
- Establish links/coordination with various Ministries/ Establishments, Institutions of the Government of Pakistan (GoP), Intellectuals in HEC recognized Universities, as well as Non-Governmental Organizations (NGOs) in matters related to their requirements and support for Policy Documentations
- Strengthen Linkages through signing of MoUs with national/ International partners such as; University Centres of Excellence, national think tanks, public/private policy reform institutions and NGOs, to seek supporting guidelines to materialize the PAS initiatives on Policy Documentations
- Facilitate Advisory Committee for SAG-Unit in identification of Experts/Members to formulate Advisory Committees for various policy documents.
- Organize and coordinate monthly, bi-monthly, and /or quarterly meetings with Advisory Committee to discuss the policy related progress and performance of the PAS Policy Unit and to seek advice of the Committee for needful.

#### **(d) Policy Related Steering Committees/Think Tanks**

There will be a steering committee for revision/ review/ upgradation of each policy document. In line with the advice of Advisory committee, the Members of the steering committees will work hands-in-hands with the Director Policy Unit for the following tasks: (i) facilitate follow-up for execution of the scientific advice of the Advisory Committee for review/upgrade of an existing policy document and/or compilation/development of a new policy in relation to national Sustainable Development Goals (SDGs), and (ii) proper documentation of scientific advice for needful of the relevant stake-holders.

Policy relevant Fellows of the Pakistan Academy of Sciences may act as Members of the Steering Committee along with non-PAS pool of experts from academia, industry and governmental institutions/NGOs, etc. may participate in review, upgrade/compilation work of policy documents for consideration of relevant Government bodies / ministries on topics of utmost concern for scientific, technical and socioeconomic development in the country. In this endeavor, the relevant PAS fellows will act as a **neutral think tank without any political ends. The steering Committee Members will adopt the following course of action for review/up-grade of the existing policy documents, and/or compilation of new policy documents:**

- i) Strengthening of Linkages through signing of MoUs with national and international partners such as; University Centres of Excellence, national think tanks, public/private policy reform institutions and NGOs, to seek supporting guidelines to materialize the PAS initiatives on Policy Documentations
- ii) Facilitation in the organization of conferences, workshops, forums and discussion groups to promote debate and dialogue for improvement in existing/revised draft policy documents (such as policy documents on food security, water security, poverty alleviation, energy, science diplomacy, etc.)
- iii) Facilitation in the conduct of training programs for capacity building of stake holders related to revision, improvement of above policy documentations and/or compilation of afresh policy documents.

#### **(e) Editor Policy Unit**

The Editor having purely scientific background (but ideally with policy exposure) is responsible to facilitate Director Policy Unit in adequate policy compilation and documentation as well as to supervise editorial matters related to Policy Documentation at the PAS-Policy Unit. The overall assignments of the Editor PAS-Policy Unit include the following:



**(i) Facilitation and Coordination with Director Policy Unit in Accomplishment of Tasks of PAS Policy Unit:**

- Collaborate/Coordinate with the Members of Advisory Committee (AC) for PAS-Policy Unit as well as Dir. Admin-PAS to identify matters/issues of national concern for compilation of relevant policies.
- Supervise the overall activities and functioning of the three sub-groups of the “Scientific Advice to the Government-Unit” in coordination with Director Admin (PAS).
- Assure compilation of about 5-6 policy documents per year by each sub-Group of the Policy Unit.
- Facilitate the “Scientific Advice to the Government-Unit” in matters related to timely compilation, editing, printing/ publication of scientific policy documentations assigned by PC-I related Project Director/Dir. Admin as outputs of the SAG-Unit.
- Facilitate colleagues in Policy-Unit in drafting Emails and Letters in coordination with Director Admin (where needed) for support & coordination from Governmental Organizations/ Institutions/ Establishment and NGOs in matters related to scientific policy documentations.
- Organize webinars, meetings, workshops, forums and discussion groups to promote debate and dialogue for improvement in existing/revised draft policy documents
- Organize training programs in collaboration with Policy Wings of various Ministries of GoP and NGOs for capacity building of stake holders related to revision, improvement of policy documentations and/or compilation of afresh/new policy documents.
- Establish links/coordination with various Ministries/ Establishments, Institutions of the Government of Pakistan (GoP), Intellectuals in HEC recognized Universities, as well as Non-Governmental Organizations (NGOs) in matters related to their requirements and support for Policy Documentations
- Strengthen Linkages through signing of MoUs with national/ International partners such as; University Centres of Excellence, national think tanks, public/private policy reform institutions and NGOs, to seek supporting guidelines to materialize the PAS initiatives on Policy Documentations
- Facilitate Advisory Committee for SAG-Unit in identification of Experts/Members to formulate Advisory Committees for various policy documents.
- Organize and coordinate monthly, bi-monthly, and /or quarterly meetings with Advisory Committee to discuss the policy related progress and performance of the PAS Policy Unit and to seek advice of the Committee for needful.

**(ii) Compilation of Policy Documentations of Interest to SAG-Unit**

- Collect policy document related international (developed countries)/ regional (developing countries in the region) database of interest to SAG-Unit.

- Identify gaps between SDGs (Sustainable Development Goals) related previously compiled policies of the GoP and international/regional policies on allied topics.
- Identify new / logical requirements for compilation and upgradation of national policies.
- Consult documentations/statistics published by the Bureau of Statistics (GoP) to improve/up-grade the bar charts, Pi-Charts, statistical data/diagrams in previously published policy documents.
- Add a touch on development of top of the list technologies and innovations in partnership/ collaboration of national industry and available talent and scientific R&D facilities in top ranking universities in Pakistan.

**(iii) Sharing of PAS Policy Documents with Relevant Stake-holders of GoP and the NGOs**

- To share the PAS upgraded/revised policy documents with concerned Ministries/Establishments of the Government of Pakistan and NGOs for implementation of the policy in order to overcome the related issue of national concern and for socio-economic development in Pakistan.

**(f) Technical Assistants / IT Experts**

The Technical Assistants/IT Experts in the PAS-Policy Unit will perform their policy related work under direct supervision of the Director/Editor Policy Unit. The overall assignments of Technical Assistants/IT Experts include the following:

**(i) Internal Coordination in Tasks of Policy Unit**

- Assure timely compilation, editing, printing/ publication of 5-6 scientific policy documentations per year as assigned by PC-I related Project Director /Director Policy Unit and or Dir. Admin/ Editor Policy Unit as outputs of the SAG-Unit.
- Coordinate and collaborate with Editor PAS-Policy Unit and Director Admin-PAS to: (a) identify matters/issues of national concern as per requirement of GoP for compilation of relevant policies; (b) Organize training programs as well as webinars, meetings, workshops, forums and discussion groups to promote debate and dialogue for improvement in existing/revised draft policy document, and (c) Establish links/coordination with various Ministries/ Establishments, Institutions of the Government of Pakistan (GoP), Intellectuals in HEC recognized Universities, as well as Non-Governmental Organizations (NGOs) in matters related to their requirements and support for Policy Documentations.

**(ii) Compilation of Assigned Policy Documentation of Interest to PAS-Policy Unit**

- To collect policy documents related international (developed countries)/ regional (developing countries in the region) database of interest to SAG-Unit (policies assigned to the respective sub-group of PAS Policy Unit).
- Identify gaps between SDGs (Sustainable Development Goals) related previously compiled policies of the GoP and international/regional policies on allied topics.
- Identify new / logical requirements for compilation and upgradation of national policies.
- Consult documentations/statistics published by the Bureau of Statistics (GoP) to improve/up-grade the bar charts, Pi-Charts, statistical data/diagrams in previously published policy documents.
- Add a touch on development of top technologies and innovations in partnership/collaboration of national industry and available talent/R&D facilities within top ranking universities in Pakistan.

**(iii) ITC related Services**

- Provision of assistance to Director/Editor PAS-Policy Unit, and Manager IT (PAS) in matters related to up-loading of Policy related documentations on PAS Website as well as installation, operation & maintenance of IT equipment, networking facilities, video conferencing, on-line lecturing/ seminars, Audio/Video recording in PAS Committee Room/Auditorium.
- Maintenance of printers and plotters in PAS-Policy Unit.

**(g) Interns**

The Interns in the PAS-Policy Unit will perform their policy related work under direct supervision of the Director Policy Unit as well as In-charge of their respective Policy Sub-Group. The overall assignments of the Interns include the following:

**(i) Internal Coordination in Tasks of Policy Unit:**

To coordinate and facilitate the respective In-charge of Policy Sub-Group to perform the following tasks:

- Identification of issues of national concern as per requirement of GoP for compilation of relevant policies;
- Organization of training programs, webinars, meetings, workshops, forums and discussion groups to promote debate and dialogue for improvement in existing/revised draft policy document, and
- Establishment of links and coordination with various Ministries/ Establishments, Institutions of the Government of Pakistan (GoP), Intellectuals in HEC recognized Universities, as well as Non-Governmental Organizations (NGOs) in matters related to their requirements and support for Policy Documentations

**(ii) Compilation of Assigned Policy Documentation of Interest to PAS-Policy Unit**

To facilitate respective In-charge Policy Sub-Group in the following tasks:

- Collection of policy documents related international (developed countries)/ regional (developing countries in the region) database relevant to policies assigned to the sub-group of Policy Unit.
- Identification of gaps between SDGs (Sustainable Development Goals) related previously compiled policies of the GoP and international/regional policies on allied topics.
- Identification of new / logical requirements for compilation and upgradation of assigned policies.
- Collection of documents/statistics published by the Bureau of Statistics (GoP) to improve/up-grade the bar charts, Pi-Charts, statistical data/diagrams in previously published policy documents.
- Identification of top technologies and innovations to be incorporated in the policy document such that these are feasible in partnership/collaboration of national industry and available talent/R&D facilities within top ranking universities in Pakistan.

A summary of policy documents of interest to the Pakistan Academy of Sciences is mentioned at **Annexure-I** for information of the reader. Other documentation of interest to the Ministries may be added in this list in due course of time. **Annexure-II** highlights the distribution of Work / Tentative Plan of Activities for Compilation/ Revision / Upgrade of Policies of National Concern during the period FY: 2021 – 2022, while the **Annexure-III** presents a scenario of the Yardsticks and/or Result Based Monitoring Parameters (RBMPs) for execution of policy related tasks and assignments of the PAS Policy Unit.

## Plan of Activities for Policy Advice to the Government through the Scientific Advice to the Government (SAG)-Unit at PAS, Islamabad

Through the PSDP Project#302, the Pakistan Academy of Sciences (PAS) offers impartial policy reviews/recommendations for upgrades of existing policies and /or compilation of fresh policy documents for the Government of Pakistan. In this endeavor, the proposed plan/time line for policy documents is as following:

Relevant Ministry and Policy Title	Needful w.r.t. National SDGs & Vision 2025	Tentative Timeline
<b>Ministry of Science and Technology</b> 1. National Science, Technology and Innovation Policy 2012-2013	Policy Review/ Recommend for Upgradation	1 year
<b>Ministry of Climate Change</b> 2. Framework for Implementation of Climate Change Policy 2014	Policy Review/ Recommend for Upgradation	1 Year
<b>Ministry of Federal Education and Professional Training</b> 3. National Education Policy Framework 2018 4. National Curriculum Framework Pakistan 2017 5. Minimum Standards for Quality Education in Pakistan 2017	Policy Review/ Recommend for Upgradation	6-9 Months each
<b>Ministry of Water Resources</b> 6. National Environmental Policy 2005 7. National Drinking Water Policy 2009 8. National Water Security Policy	Policy Review/ Recommendations for Upgradation	6-9 months 6-9 months 1.5 Year
<b>Ministry of Foreign Affairs</b> 9. Science Diplomacy Policy	Policy Review /upgradation	6 months
<b>Ministry of National Food Security and Research</b> 10. National Food Security Policy-29 May 2018	Policy Review & Recommendations	6 months
<b>Miscellaneous Policies</b>		
11. Social Media Policy	Policy Review /upgradation	1 year
12. Poverty alleviation	Review/Recommendations and Policy Upgradation	1 year
13. National Energy Policy (Conventional and Renewable energy policy)	Review/Recommendations and Policy Upgradation	1.5 year
14. General Agriculture Policy Document (Proposer: Prof. Dr. Iqar Ahmad Khan, PAS Fellow)	Policy Review/upgradation	3 year
15. Strengthening of National and International Collaboration at Multi-Disciplinary Level for Socioeconomic Development and Science Diplomacy (Proposer: Prof. Dr. Zabta Khan Shinwari, PAS Fellow)	Policy Review/upgradation	1 year

**PSDP Project#302**  
**Distribution of Work / Tentative Plan of Activities for**  
**Compilation/ Revision / Upgrade of Policies of National Concern**  
**Time Frame: FY: 2021 – 2022**

**Policy Sub-Group 1: Dr. Waris Ali Khan + One Intern**

1. Framework for Implementation of Climate Change Policy 2014 (Review Submitted)
2. National Energy Policy (Conventional and Renewable Energy Policy)
3. General Agriculture Policy Document
4. National Food Security Policy-29 May 2018 (Ministry of National Food Security and Research)
5. Strengthening of National and International Collaboration at Multi-Disciplinary Level for Socioeconomic Development and Science Diplomacy
6. Industrial Growth and Technology Innovation Policy
7. Any other Policy of vital national concern

**Policy Sub-Group 2: Mr. Sajid Ali + One Intern**

1. National Science, Technology and Innovation Policy 2012-2013 (In Progress)
2. National Environmental Policy 2005 (Ministry of Water Resources)
3. National Drinking Water Policy 2009 (Ministry of Water Resources)
4. National Water Security Policy (Ministry of Water Resources)
5. Science Diplomacy Policy (Ministry of Foreign Affairs )
6. Tourism and Culture Policy
7. Any other Policy of Vital National Concern

**Policy Sub-Group 3: Ms. Anza Malik + One Intern**

1. Social Media Policy (In Progress)
2. Poverty Alleviation
3. National Education Policy Framework 2018 (Ministry of Federal Education and Professional Training)
4. National Curriculum Framework Pakistan 2017 (Ministry of Federal Education and Professional Training)
5. Minimum Standards for Quality Education in Pakistan 2017 (Ministry of Federal Education and Professional Training)
6. Any other Policy of Vital National Concern

## Results Based Monitoring Parameters for PAS Policy Unit/SAG-Unit

The following Yardsticks / Result Based Monitoring Parameters (RBMPs) define the progress of the PAS SAG-Unit/ Policy Unit

Fiscal Year	Assigned Task / Baseline Indicator(s)	Specific Outcome(s)	Impact / Remarks
2019-20 & 2020-21	<b>Establishment of Scientific Advice to Government-Unit / Policy Unit</b>	Established Scientific Advice to Government-Unit/Policy Unit comprising of 4 furnished offices equipped with host desking space, desktop computers, Central printing, Internet, Webinar and Phone, facility, Reception Counter, etc.	Policy Officials are using the created offices/ facilities for policy related compilation/upgrades work, etc.
2020-21 & 2021-22	<b>Recruitment of Human Resource</b> <ul style="list-style-type: none"> <li>• Director Policy Unit</li> <li>• Editor</li> <li>• IT Experts/ Tech. Assistants</li> <li>• 3-5 Interns</li> </ul>	Posts Advertised -In process: (CV collected) -Recruited -Recruited -In process (Interns CVs collected/ Written Test, Interview tentatively scheduled on 4 August 2021)	Recruited manpower is engaged in research for collection of policy related database and for compilation / upgrade of policy documents.
2020-21 & 2021-22	<b>Constitution of Policy Unit Related Supporting Committees</b> <ul style="list-style-type: none"> <li>• A five (5) Members Advisory Committee (AC) to be constituted by the President PAS.</li> <li>• Steering Committees to be constituted by Dir. Policy Unit in coordination with Advisory Committee &amp; Editor Policy Unit.</li> </ul>	- AC Constituted by PAS President in March, 2021 and circulated to convener of the Advisory Committee. HEC was also informed.  - Partially constituted in PAS Council Meeting on 6 March, 2021	Comprehensive meeting of both the committees is yet to be convened
2020-21	<b>Identification and Prioritization of Issues of National Concern for Compilation of Policy Documents</b> <ul style="list-style-type: none"> <li>• The “Scientific Advice to Government-Unit” in consultation with Members of the Advisory Committee and Steering Committee will identify and priorities issues of national concern as per requirement of GoP for compilation of relevant policy documentations</li> </ul>	• The resource persons at the PAS “Scientific Advice to Government-Unit” identified, prioritized and distributed policy titles of concern to GoP for compilation of policy documents by the respective teams / sub-groups of Policy Unit.	The human resource at PAS Policy Unit has initiated work on compilation of policies as per identified/ Prioritized list of policies of concern to GoP
2020-2021	<b>Evaluation of the Outputs of Policy Unit</b> <ul style="list-style-type: none"> <li>• Compilation of at least 5-7 Policy Briefs per year.</li> </ul>	• To-date, the PAS Policy Unit has reviewed the following Draft Policies upon the request of Ministry of Climate Change (MoCC) and	• Policy related response and upgradations/review was communicated

<p>&amp; 2021-22</p>	<ul style="list-style-type: none"> <li>PAS would be able to share policy documents with concerned Ministries/Stake-holders of the Govt. of Pakistan for information and implementation in order to resolve/overcome policy related issue(s) of national concern.</li> </ul>	<p>the Ministry for Science and Technology (MoST):</p> <p>(a) National Climate Change Policy (Draft document dated: 4<sup>th</sup> March 2021)</p> <p>(b) National Science, Technology and Innovation Policy 2021 (Draft document June, 2021)</p> <ul style="list-style-type: none"> <li>Sec. General, PAS attended a Policy related meeting of experts at MoST and handed over the inputs of PAS to upgrade the S&amp;T related policy drafted by the MoST.</li> </ul>	<p>to the relevant focal persons in concerned Ministries.</p> <ul style="list-style-type: none"> <li>The PAS will maintain collaboration with Policy Units of the Ministry of Climate Change and MoST for work related to policy reviews/upgrades, etc.</li> </ul>
<p>2020-21 &amp; 2021-22</p>	<p>Outreach and contacts with policy relevant Ministries/Stake-holders of the Govt. of Pakistan to learn about their needs for policy revisions/upgrades.</p>	<p>The Officials of PAS Policy Unit took initiative and visited officials at Policy Sections in various Ministries of GoP to learn about their needs and requirements from the PAS Policy Unit for policy revisions/upgrades. As verbally directed, the PAS Policy Unit wrote official letters on behalf of the Secretary General PAS to relevant Policy Sections in these ministries. No written response or email was received from any of the contacted ministries / departments except Ministry of Climate Change and the Ministry of Science &amp; Technology (MoST).</p>	<p>The PAS Policy Unit will continue to contact the Policy Sections in various Ministries and will conduct training workshops, seminars and webinars to meet its objectives in-line with the PSDP Project # 302.</p>