**Managing Financial Resources: Enhancing the finance management capabilities of NHMSs personnel.**

*Prepared by*

*Team 3: S.Sarfaraz, Kamal Ram Joshi, Bates Manea and Shamsuddin Ahmad*

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A robust financial management is a key area of an organization. Knowledge, skills and techniques of financial information aids decision-making and understand financial state of NMHSs. NMHS’s mission and objectives can be achieved through a smart planning and management of its financial resources, allocation and spending of funds and accountability and reporting.

Pakistan Meteorological Department (PMD), a scientific and as well as a service department, works under the ministry of Aviation of Federal Govt. PMD’s structure has one principal or Headquarter office with five regional offices spread across Pakistan with overall 2500 employees. Having 105 manned synoptic observatories network, it provides variety of services in aviation, agriculture, marine, hydrology (flood forecasts and water flow in reservoirs), seismic monitoring and Tsunami early warning, drought monitoring and early warning and public weather forecasting. Being a service department it seeks and obtains budget, an incremental budget, from the Federal Govt on annual basis. The granted budgetary amount then is allocated into five main spending heads: Employees cost (salaries, allowances, rewards etc.), Travel expenses (for staff mobilization in the field work), Communication and Assets (equipment and machinery, furniture and fixtures, office building and land). Budget amount is spent through the Accountant General of Pakistan Revenues (AGPR) office strictly in accordance with the laid down policies of public spending: i.e. procurement is made according as PPRA, public procurement regulatory authority, rules; the bills/invoices are submitted to the AGPR offices where a pre-audit is carried out before passing out the bills and the same AGPR office then carries out the annual audit of all the expenditures made in a particular year. Worth mentioning that about 85% of the allocated budget goes to staff salaries and relatively meager amount is left for developing and uplifting the service infrastructure, hence challenge remains there to cope up with the ever-increasing demands of the stakeholders and keep pace with changing technology in the fields of meteorology, hydrology, climatology and seismology.

Nepal is also highly vulnerable to natural disasters; it falls in the top twenty most multi-hazard prone countries in the world. Globally, it is ranked fourth, eleventh and thirtieth in terms of vulnerability to climate change, earthquake and flood risks respectively. The disasters like landslide, fire, drought, storm/hailstorm, avalanches and GLOF are quite common in Nepal. For the sustainable development and to cope with natural disasters related to weather, climate and water resources has increased the demand of meteorological and hydrological services to help promote lives and livelihoods. So the NMHS urgently need to improve their tradition monitoring system to modern state-of-the-art systems. The economic cost associated with natural disasters has increased the importance of hydro-met services to the national economy. But due to insufficient financial resources, the Department of Hydrology and Meteorology (DHM) is under tremendous pressure to tackle emerging challenges more effectively and efficiently.

Similarly Bangladesh and Cook Island are also prone to multi-hazard disasters like cyclone, Tsunami, floods and climate change. The Hydro-met services face a formidable challenge to meet the public and end-users demands in changing climate change and rapidly developing modern technological scenarios especially owing to meager finances. Specifically, the issues and challenges faced by NMHSs of team 3 are as follows.

**Issues and Challenges:**

1. The increased focus on issues such as disaster risk reduction, climate change and variability, food and water security and environmental sustainability;
2. The rapid developments in science and technology related to meteorology, climatology, operational hydrology, computing and communications;
3. The nature of the round-the-clock operations of an NMHS, dispersed staff and facilities and requirements for rapid and frequent national and international communication;
4. The need to manage donor-funded projects that stretch the resource capacity of the receiving NMHS, especially for developing countries;
5. Lack of proactive (or insufficient) participation of NMHSs technical personnel (particularly in PMD’s case) in budget preparation and making and their insufficient skills in the area;
6. And of course limited budgetary resources at NMHSs disposal, (Source: WMO ETR-24)

Therefore, NMHSs have to have very robust and smart budget proposals to be put forth to the Govts for approval (and enhancing the financial resources) so that their operational services are carried out efficiently and effectively to yield optimum public benefit. Because, it is a financial management which helps NMHSs in making effective and efficient use of resources, achieving organizational objectives, provision of information to support decision-making, becoming more accountable to funding agencies and gain their respect and confidence, and preparing long-term financial sustainability.

**Budget preparation**

**Overview of budget**

A budget is a financial document that is used to project future income and expenditure over a specified period, usually a year in NMHSs case. Setting a budget is a key task of an organization’s senior management team. The outcome of budget can have a profound impact on the organization’s activities and its ability to meet its strategic goals. NMHSs are therefore required to have well thought-out, well-planned and well-prepared budget proposals orchestrated by the finance-understanding professionals so as to better present their case before the granting authorities. Budget holders are responsible for controlling and monitoring income and expenditure and understanding the reasons for any large variances, differences between income and expenditures (can be both overspends and underspends). They are also supposed to act if any variances have a significant impact on the planned activities and the overall financial situation of the NMHS.

**Purpose of the budget**

Besides being used to control and monitor the income and expenditure, the budget has other purposes like:

1. Meeting organizational objectives:

The budget describes the financial requirements for an organization to meet its objectives while taking account of the organization’s strategy, plans, key performance measures and policies. Budget provides the NMHSs managers to be aware of the organization’s objectives and its key performance measures.

1. Coordinating activities:

If an organization consists of several departments, the budgeting process helps coordinate their activities with a view to all departments contributing to meeting the organization’s objectives and making effective use of the resources that are available.

1. Motivating managers:

The budget can motivate managers if their performance is assessed against the budget. The financial managers are however required to keep in view the long-term objectives of the NMHSs and ensure that the budget constraints do not impede those objectives.

1. Communicating:

Communicating information about the budget helps managers and other employees understand the organization’s objectives and priorities. It also provides a mechanism for senior managers to get feedback about the challenges affecting operational activities.

1. Allocating resources:

Budget preparation should ensure that the resources are allocated is line with the strategic objectives of the organization and its annual plan. It also might identify scarce resources or those that need to be carefully managed or increased.

**Monitoring and auditing of the budget**

Monitoring of the budget is crucially important to keep the proceedings on track to make sure that NMHSs objectives are ultimately met. Better way of doing this to segment the budget into quarterly or bi-annually phases and to keep measuring of progress toward achievement of the goals. A proper auditing of the budget is essential mechanism to ensure that the resources are spent at optimum level and organization’s objectives are met.

**Benefits from the Leadership and Management Programme**

This training program has provided lot of insight about how to apply the:

1. Adaptive leadership: Because it induces a change that enables us to thrive, makes to build on the past with relying on diversity. So NMHSs must encourage the adaptive leadership to answer the emerging challenges and progress futuristically.
2. Strategic foresight and strategic planning: The NMHSs need to have a strategic foresight and focus on strategic planning to sustain their operations in looming financial constraints and thrive visibly and soundly.
3. Negotiation skills: To take NMHSs moving along with the needs of changing times, their leadership needs to demonstrate the utmost skills in negotiation in convincing the respective Govts for more investment to improve their services for the betterment of the society. NMHS should work out to quantify the value the Met services add to national economy and societal benefit.
4. Effective communication: To communicate and communicate effectively is another area where lot of new skills and expertise are required so that common man understands the message NMHSs services mean actually. NMHSs should therefore focus on this area also to improve, enhance their message content in this competing scenario.
5. Management of financial resources: NMHSs should pay adequate attention to equip their financial managers to be able to spend less, spend wisely and spend efficiently so that the ultimate objectives of the organization are easily met and not compromised.

**Recommendations**

1. NMHSs should think strategically to improve and enhance their financial resources from sources, other than Govt’s granted budgets, like aviation, marine, agriculture, industries, water, power, and recreation and tourism sectors as they add value to these sectors services and their products.
2. NMHSs should engage the social scientists to assess and quantify the economic value their services add to the above mentioned sectors and should convince them to contribute their part in sustainability and improvement of hydro-met services, so that the society gets the ultimate benefit.
3. NMHSs should focus to prepare a specialized team of finance managers and get them trained to better plan, both short-term and long-term, the projects to achieve the ultimate goals of organization.
4. The finance managers of NMHSs should be equipped with latest and innovative skills so as to be able to prioritize well, spend wisely and spend efficiently.
5. The finance managers of NMHSs should be trained to prepare short-term, medium-term and long-term planning.
6. Short-term planning should cater immediate requirement of technology, human resource and finances; medium-term and long-term planning to meet the emerging challenges of climate change and increasing extreme weather events and their induced damages.

**References:**

1. DY No. 934 DFA (Avn)/2019; PMD budget document, FY 2019-20.
2. ETR-24. A Compendium of Topics to Support Management Development in National Meteorological and Hydrological Services; ([www.public.wmo.int](http://www.public.wmo.int)).