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For the Record: Second Thoughts on Early Warning, Early Action (EWEA), EW4All, or EWEA4All?

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Abstract: Over the past four decades, people around the globe have experienced unprecedented escalations in the frequency, intensity, magnitude, and location of anomalous hydrometeorological (hydromet) hazards attributed in large measure to the direct and indirect effects of global climate-change-related variability and extremes. The WMO, impelled by an unabated warming of the global climate system and its related extremely anomalous hydromet impacts, chose in March 2022 "Early Warning, Early Action" (EWEA) as the theme for its World Meteorology Day. The theme was praised in a press release by UN Secretary-General Antonio Guterres, who called for the development of a new EWEA initiative to ensure that "every person on Earth is protected by early warning systems within five years". By mid-2022, several meetings and workshops had already been held by the WMO to forge the new initiative on its road to the UN Climate Conference of Parties (COP27) in November in Sharm El Sheikh, Egypt. COP27 provided a suitably prominent venue for launching the new USD 3.1 billion, 5-year EWEA initiative; there, Secretary-General Guterres formally tasked the WMO, in partnership with the UNDRR, to lead it. But COP27 proved to be interesting as well as illuminating in other, less publicized ways having to do with EWEA. There, what had been the working title of the new initiative was officially changed to EW4A, "Early Warning for All". Despite the seemingly perfunctory nature of this change, the reality is that it will almost certainly have outsized impacts on the strengths, weaknesses, opportunities, and constraints (SWOC) met specifically in planning and implementing the new initiative's "early action" strategies and tactics. It is particularly important to bear in mind that, as things now stand, various unanticipated challenges having to do with the lack of organizational experience and capacity with regard to "early action" are likely to arise with the WMO-led implementation of the new initiative. Considering the new EW4A acronym as if it was a commercial brand can, like this, be instructive in thinking about how the seemingly perfunctory name change—from EWEA to EW4A—will impact the initiative's implementation of "early action". Doing so can be instructive because, just as the logos of companies like Apple, Nike, or Starbucks eventually became the face of their respective products, so too have branded acronyms like NASA, IOC, WHO, and INTERPOL become the face of their governmental institutions' or global initiatives' respective commissions and commitments. It follows then that if "consumer" interest is to be taken seriously and is (hopefully) long-lasting, then the branding of a new product or initiative must be undertaken with great consideration *before* a final identifier—be it a logo, a catchphrase, or an acronym—is selected. The question in the case of the new WMO-led initiative, then, is the following: Was this issue seriously taken into consideration before EWEA was so abruptly replaced by EW4A at COP27 in Egypt in November 2022? This pointed question is especially meant to highlight how the continued use of the original EWEA acronym by way of developing regional EWEA centers under the "Early Warning for All" umbrella has the possibility of turning regional potential energy into kinetic energy which will be essential if the theoretical gains of future "early warning" (EW) forecasting science are to be effectively translated into "early action" (EA) strategies and tactics that actually, finally, protect people and property across the entirety of the earth from the impending severe impacts of our changing climate future. Thus does this paper raise valid concerns about the balance between support and funding for EW and EA.

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1. Glimpsing EWEA's Future History

Early Warning, Early Action started as an interesting concept that then became a popular acronym (EWEA) (e.g., [1]) a decade and a half ago when it was first formulated as a guiding principle by the International Federation of Red Cross and Red Crescent Societies (IFRC). It was initially meant to accelerate preparatory (now called anticipatory) actions for humanitarian responses to forecasts of foreseeable hydromet-related hazards [2]. The original idea behind the EWEA principle was to assist at-risk populations before the impacts of a hydromet hazard of concern first appeared in order to reduce, if not to avoid completely, a potential disaster by providing advanced support to those most at risk from the forecasted hydromet hazard. Operationalizing EWEA had been an official IFRC policy for several years when the FAO also began to operationalize its hazard-related food insecurity response model in terms of the EWEA anticipatory paradigm. The FAO notably emphasized the equal importance of both technical forecasts ("early warnings") and tactical responses ("early actions") in hazard anticipation and mitigation.

Interest in the EWEA anticipatory paradigm has grown significantly during the past few years in part because of spectacular record-setting levels of extreme hydrometeorological impacts and in part because of increasing socio-economic vulnerabilities in many societies around the globe. EWEA is now typically taken into consideration by humanitarian organizations in general well before the impacts of hydromet hazard forecasts begin to appear. Further cementing EWEA's status for anticipatory responses, in 2019, at the UN Climate Action Summit hosted by the IFRC, the Risk-informed Early Action Partnership (REAP) was established to bring "stakeholders together across the climate, humanitarian, and development communities to make a billion people safer from disasters by 2025 and drive a systemic shift towards early action" [3].

By operationalizing the best practices of the paradigm, a reliable and credible forecast, regardless of the type of hydromet-related hazard, would enable humanitarian organizations, NGOs, and government agencies (from local to national) to become increasingly proactive by, for example, prepositioning goods (e.g., medicine, food, water, shelter), organizing services (i.e., helping people to move out of harm's way), and identifying and funding potential victims; EWEA would, that is, enable better anticipation, in terms of both warnings and actions, of the foreseeable impacts of a warmer global future no matter where those impacts would materialize or who they would make most vulnerable. In fact, one could argue that the EWEA anticipatory paradigm tacitly acknowledges that every person on the planet lives daily now at his or her own global warming "ground zero".

2. What's in a Name?

When the IFRC began to think in terms of EWEA over 15 years ago, it was a guiding concept for itself as a humanitarian organization operating around the globe. Today, the EWEA anticipatory paradigm is no longer only of interest to humanitarian organizations but has become an operational principle for all kinds of environmental and other impact-focused organizations. This is because EWEA has been proven to enhance the capacity of countries, communities, and NGOs to cope more effectively with forecasts and the impacts of hydromet hazards through advancements in readiness as well as through preparedness actions by anticipatory planning for potential adverse local to national consequences of hazard events.

Tellingly, when previous initiatives involving the WMO have explicitly mentioned specific targets for EWEA, they have explicitly named the least developed countries (LDCs) and small island developing states. This again shows how EWEA has, since its inception, overtly meant to target the developing world, where the most vulnerable continue to

struggle against the many hazards they face. This struggle will only become more difficult, as the EWEA paradigm tacitly acknowledges, in a future with a changed climate. The following quotes, from official WMO [4] press releases on EWEA in Fall 2022, demonstrate how the new initiative, just weeks before the abrupt name change (from EWEA to EW4A) at COP27, was meant to continue to explicitly focus on the most vulnerable populations:

- "An estimated 3.3 to 3.6 billion people live in situations which are highly vulnerable to climate change".
- "WMO and partners are working to ensure that the early warnings are translated into early action and reach the last mile" and that last mile requires serious and large-scale efforts . . . to improve emergency preparedness in developing countries, particularly the small island developing states".
- "One out of three persons globally, primarily in Small Island Developing States and Least Developed Countries, and six out of every ten persons in Africa lack access to effective early warning systems".
- "LDCs are among the most vulnerable to climate change. We must accelerate efforts to help the LDCs to adapt to new and future climate risks".

In truth, the new WMO-led initiative's seemingly abrupt name change at COP27 has already had a suppressive effect on this long-assumed focal point of EWEA; it is an effect concealed in the form of the new name's very rhetorical construction, EW4A. For, as demonstrated above, EWEA, since its original conception, implied that the improved early actions (EAs) that would be enabled by enhanced early warnings (EWs) would be available to individuals, communities, and agencies at every level and in every capacity of forecasting and response. The equal significance of both "early warning" and "early action" in the original IFRC initiative's very name (EWEA) provides the warrant for this claim; an assumed correspondence between warning and action had been a fundamental assumption of the now globally recognized anticipatory paradigm, that is, at least until the abruptness of the name change at COP27.

With the abrupt change to EW4A, the assumptions implicit to this globally recognized correspondence have become much less certain. The difference may be said to come down to what specifically has been suppressed by the explicit introduction of the word 'All' with the re-naming of the new initiative. Put more specifically: To whom does that newly explicit 'All' in the WMO-led initiative's new name actually refer?

It could, of course, refer to the same broad constituency that EWEA long assumed. But it could just as easily refer solely to all UN country members, an overt mention made in order to ensure continued support for the new initiative despite the seeming diminishment of the importance of "early action", which is, after all, the component of the original EWEA paradigm for which things at the local level really get done.

But the 'All' in EW4A could even more easily signify a much narrower point of reference, one that only encompasses the "All" that is the often (at least in the past) technically and technologically exclusive group, under the WMO umbrella, of national meteorological and hydrological (NMHSs) members that will surely be central to any new initiative relating to hydromet hazards. NMHSs have of course traditionally been the producers *and* the conveyors to the public of those hazard forecasts from which *all* actions—early or late, prompt or delayed, perfect or limited—are, even today, expected to unfurl operationally into the world, so explicit reference in the signification of the newly explicit 'All' to the continued pre-eminence of the members of that exclusive club would also certainly be plausible.

3. Acronyms as Brands

It is instructive here to consider the EWEA anticipatory paradigm as a brand. The functions of branding include the exposure of a product (in this case, either EWEA or EW4A), the greater understanding of intended consumers (in our case, hydromet hazard forecast users and stakeholders), and the creation of a trusting relationship between the

brand and the consumer (here, the community of forecast producers and the community of forecast users).

On the value of using a brand to build trust between the producers of a product and the users of that product, Britland [5] writes that "Once identity, meaning and response have been established, the brand should be on its way towards creating long-term [brand] relationships with customers. For success, all the principles of branding must come together (and combine with the product) to give customers a reason to keep going back". Similarly, Jones [6] observes that "Branding allows you to build relationships with your audience, which can eventually turn them into loyal customers".

Despite these positive strategies, however, Pringle and Thompson [7] add a cautionary note:

> "A brand that is popular at any given moment cannot alone sustain support for goods or services over a long period of time. They can attract attention. They can rally support for early-on customers. What they cannot sustain is the enthusiasm created by the brand's early successes without delivering on the collective expectations of its consumers."

In the same vein, Lewis [8] writes about the importance of limits to maintaining and growing brand awareness: "Lasting brands are still built the old-fashioned way: By consistently making good on what they promise to deliver".

Identifying a product, organization, program, or activity by an acronym of its spelled-out name has become a common form of branding. There is, however, more to an acronym than meets the eye, as it is but the tip of a much larger information iceberg, most of which is out of sight because it exists below the surface of explicitness. When people see the tip of an iceberg, they are typically at least tacitly aware that much lies beneath. Similarly, those who recognize an acronym also recognize that it represents much more about its company or product than exists at the surface-level explicitness represented by the specific brand acronym. In this way, a recognized acronym (in this case, the new WMO-led initiative) becomes the branded face of the product to the public.

What current users of the EWEA brand have come to expect of anticipatory disaster risk reduction (DRR), perhaps more than anything, are the opportunities in the face of impending disaster that the innovations of its defining paradigm—the correspondence between "early warning" and "early action"—afford. This is particularly true with regard to opportunities that highlight how warnings and actions are fully equal components of the EWEA brand. To be sure, this equal emphasis on "early warning" and "early action" has from its first formulation been the defining characteristic of the EWEA brand, encompassing the assumed 'All' that is not explicitly stated in the acronym because the breadth of that 'All' has proven itself to be all but unlimited. That EWEA equally values both warning and action, enabling any actor, agent, or agency to participate in its promise of reducing vulnerability in advance of hazard impacts, has always been the basis of its brand's value.

In this way, EWEA kept its focus on the anticipatory principles of its paradigm because of how innovative and effective *equal* emphasis on both actions and warnings has been; it has, like this, already gained a strong level of brand recognition because it has proven not only to deliver on its promises but also to be operationally adaptable—in terms of both forecast strategy and tactical action—to a range of hazard types.

4. Highlighting Early Action (EA)

There is no lack of evidence that the Early Warning, Early Action brand (and its EWEA acronym) has grown in interest and use since it was first formulated over 15 years ago. For example, the UN FAO in 2016 created an EWEA anticipatory system related to food insecurity. The German Red Cross first created the Anticipation Hub, which in turn (in 2022) created the EWEA Future Leaders Network. The Risk-informed Early Action Partnership (REAP) was created at the UN Climate Action Summit in fall 2019 with the goal of making "1 billion people safer from disasters by 2025 by driving a systemic shift toward early action" https://www.early-action-reap.org/ (accessed on 26 October 2023). The IFRC's

EWEA influence likely has also spurred the climate community to broaden its mandate to climate services and to impact-based decision support systems.

In order to freely discuss and honestly respond to concepts related to early warning systems (EWSs) in general and, more specifically, to the notion of Early Warning Early Action (EWEA), the authors convened an "Intergenerational Thinkshop for Hydromet Early Warning Early Action (EWEA): The engagement of Young Professionals in Disaster Risk Reduction" in mid-October 2022 in Cairo, Egypt, three weeks before the UNFCCC Climate Conference (COP27) in Sharm El Sheikh. The Thinkshop was a workshop without formal presentations. Our specific interest in and focus on EWEA was prompted by UN Secretary-General Guterres's announcement during the Earth Day events in Spring 2022 that every person on the globe is to be protected by climate, water, and weather (hydrometeorological) hazard early warning systems within five years, by 2027. The plan of action for a new, multi-billion-dollar WMO-led EWEA initiative in response to this ambitious announcement was officially unveiled at COP27 in mid-November 2022. There, the new EWEA initiative was also unceremoniously, and abruptly, renamed by the WMO as EW4A.

At the end of Thinkshop's main discussions and deliberations, the young professional participants jointly prepared a Cairo Statement entitled "Five Calls to Action for Resilient Adaptation to Climate Change as if the Future Matters". The Cairo Statement's themes are as follows:

- *Blend* early action and early warning to ensure their sustained integration;
- *Commit* to supporting a "Balance of Empowerment" between EA and EW—empowering early action will increase the value to society of early warnings for DRR;
- *Trust* young professionals, who often have crucial experiences of practical action that can be shared with the broader intergenerational DRR community;
- *Provide* space for young professionals to meet their specific needs; and
- *Avoid* backing into the climate-change future—EWEA provides an opportunity for transformative, life-centered change.

Notable in this joint statement prepared by the young professionals at the pre-COP27 Cairo Thinkshop is the repeated emphasis on maintaining a correspondence between early warning and early action. Further reinforcing the importance to the EWEA brand of this correspondence were the remarks made at the opening of the Thinkshop by Maj. Gen. Aviator Tahoun, the Chairman of the Egyptian Meteorological Authority. In them, Maj. Gen Tahoun pointed to the importance of multinational, multidisciplinary, and multi-generational aspects of EWEA with specific reference to early action:

> "There is no doubt that the climate of the whole world is changing, and the weather is becoming more severe. *There is an urgent need for not only an early warning, but also an early action, with one half of which without the other has no meaning*." (emphasis added)

Maj. Gen Tahoun went on to note:

> "Establishing an effective and efficient EWEA system requires adequate planning, capacities aligned with resources, financing, and an enabling framework that provides governance which encompasses roles and responsibilities of all EWEA stakeholders, cross-institutional multi-level arrangements, and effective collaboration, partnership, and synergy across community, national, regional, and global levels, keeping in mind the importance of the inclusion of Young Professionals (early to mid-career) in EWEA decision-making processes."

Despite these examples recognizing the importance of continued correspondence between early warning and early action in future applications of the EWEA anticipatory paradigm, one of the participants at the Cairo Thinkshop, Josh Ayers [9], raised a sobering concern about the possibility of early warnings overshadowing the importance of early actions:

> "Fundamentally, we cannot assume that improved science related to forecasting hydromet hazards will automatically translate into more proactive responses [i.e., actions] to warnings. Forecast hesitancy, for example, has shown that not acting must be understood in a broader context, including politics, religion, culture, and a lack of trust in the sources of the information ([10]; see also [11]). Because these early action behaviors may vary widely based on vulnerabilities and contextual factors (livelihood, gender, age, and geographic location), implementers should actively engage the at-risk population using participatory formative research.
>
> Research should explore previous events to identify which actions would be most beneficial and preferred for which vulnerable groups... [D]evelopment activities should take place well before a hazard warning is issued, especially in contexts of cyclical events.
>
> Improve communication with the most vulnerable at-risk people through all means possible, including social media, informing them about the objectives for their inclusion in EWEA. Early action opportunities depend on the type of hazard, forecast lead time and trust in forecasts as early warnings. We must assure a balance of investments in "early warning" and "early action".
>
> Use funding from the EWEA Initiative to invest in engaging the at-risk population as much as possible. . . We recommend that practitioners clearly define the level of participation in early warning and in early action programs and attempt to move toward ownership over time (see also [12])
>
> Increase the quality of participation to improve efforts toward identifying effective early action behaviors and their determinants, developing appropriate messages, and ensuring equity in both behavior change and early warning programming."

Each of these examples about the consequences of hydromet hazards has raised serious questions about the continued importance of early action. Notably, these examples were all expressed before the WMO announced at COP27 the abrupt name change to the new initiative. What must be more explicitly recognized is that, even as physical scientists have been engaged in continuous research to improve the accuracy, reliability, and credibility of hydromet early warnings as forecasts, so too have social science researchers and emergency managers been actively developing solutions for how constraints on effective societal responses to hydromet-related hazard forecasts and impacts can be overcome. One excellent example of this continued social innovation came on 24 May 2022, when the Anticipation Hub [13] launched the "Future Leaders Network on Early Warning Early Action" at the Multi-hazard Early Warning Conference alongside the Global Platform on DRR held in Bali. At the launch, representatives from the Anticipation Hub specifically noted that:

> "The objectives of the network are to connect, inspire, and empower future leaders across practice, science, and policy to work collaboratively on promoting the use of climate information at all time scales and early warnings that enable effective early (anticipatory) action *on the ground*. . . Through the Anticipation Hub, we can make this knowledge on anticipatory action more accessible for actors inside and beyond the humanitarian sector and broaden knowledge to facilitate scaling up."

Moving forward, we explicitly call on the WMO to, as it were, more transparently show their work. As the UN institution, along with the UNDRR, tasked with administrating the four pillars of EW4A, we call on the WMO to clearly show just how it plans to implement this new, multi-billion-dollar initiative in a way that retains the crucial correspondences and seamless interactions between the technological components of early warning and the responsive components of early action that have defined the EWEA anticipatory paradigm since its inception over 15 years ago.

One way the WMO could do so would be to publish a simple but effective SWOC (strength, weaknesses, opportunities, and constraints) analysis that explicitly illustrates

how the potential use and value to society of the EWEA brand are being developed for and supported through the renamed, but hopefully not repurposed, initiative. To illustrate how the benefits of such an illustrative analytical guidance might provide greater transparency in the WMO's planning for and implementation of the EW4A initiative, we include here a SWOC analysis (Table 1) of the EWEA anticipatory paradigm as assembled by the participants of the Cairo Thinkshop mentioned above:

Table 1. EWEA SWOC Analysis. Presented at the Intergenerational Thinkshop for Hydromet Early Warning Early Action (EWEA): The Engagement of Young Professionals in Disaster Risk Reduction, Cairo, Egypt, 17–19 October 2022 [9].

Strengths of EWEA	Weaknesses of EWEA	Opportunities of EWEA	Constraints of EWEA
• We have great existing early warning systems for various hydromet-related hazards • Good early warning systems models are available • Can draw on untapped human resources in younger generations (e.g., skilled young (early- and mid-career) professionals (YPs) as well as youth) • Strong physical and social science research institutes • Improved scientific understanding of hydromet extremes and data (time series) for a variable and changing climate • NMHSs realize the importance of the need to provide impact possibilities with their forecasts • Support by political management; launched at COP27 by the WMO and with the backing of UN Sec-Gen Guterres • Encourages or forces forecasters and emergency managers to work more closely together • The concept creates an awareness of the need to integrate EW with EA	• No formal mechanisms for civil society to respond to hydromet hazards: NMHS and emergency responders are in their own glass silo, working together when a threat arises but otherwise not integrated • Conflicting interpretations of forecast probabilities • Conflicting interpretations of EWEA • Pair hazard with the warning (the right action matching the probabilistic warning) • Lack of adequate resources for EW (science) and for EA (society) • Requires sustained funding • Low absorptive capacity of society for the effective implementation of EWEA • Absence of timely and accurate knowledge and information • Access to information and technology • Prioritizing who gets the forecast first: governments or civil society • Difficulties communicating early hydromet warnings to at-risk communities • Lack of awareness about the forecast • Varying levels of trust in media, forecasters, government agencies, or in science in general • Forecast hesitancy on part of segments of society, that is, a reluctance to believe or trust the forecasts weakens their value and the use of forecasts	• New yet unforeseen applications can come by integrating EW and EA • Unseen opportunities to provide more as well as timely information for anticipatory action by humanitarian organizations • Calls for forecasters to consider and provide at risk people with decision support (not just a technical forecast but insights into the possible impacts of a hydromet hazard) • Foster new multi-disciplinary efforts through EWEA • EWEA can be of value at the local level • Greater connectivity among disciplines concerned about climate, water, or weather hazards and disasters • Peer review • Encourages forecast-based financing by governments • Draws more attention to the needs of vulnerable populations • Should increase funding or investment at local community level • Should increase funding for local agencies and NGOs • NMHSs would be encouraged to consider behavioral aspects in their communication of forecasts to civil society • Use social media platforms to better share information • Opportunities to improve behaviorally informed decisions	• Too many competing early warnings from unofficial and official sources—so which ones do we trust? • Difficult to determine societal vulnerability to hazards in a changing climate • Rules of the "game" are changing as a result of climate change • Need to change laws and politics (e.g., some regimes do not allow anticipatory emergency declarations in advance of the actual impacts of a hydromet hazard) • Difficult to obtain experts • No universal interpretation of the relationship between EW and EA • Controversial science/differing perceptions • Challenged by the specificity of activities • Difficult to have an objective approach due to diverse political cultures • Need to share more equitably the distribution of resources from technology to societal actions • Difficulties to change the habits (routines) of people, communities, and institutions in the face of the changing (warming) climate • Poor governments, communities, and individuals do not have the necessary resources to take action on their own

A particularly noteworthy benefit revealed by this illustrative SWOC analysis from the Cairo Thinkshop, one that a robust WMO analysis of the EW4A initiative would expectedly also reveal, is how it clarifies the strengths, weaknesses, opportunities, and constraints of each of the four pillars (see Figure 1) of effective early warning systems that the WMO Executive Action Plan, 2023–2027, has identified.

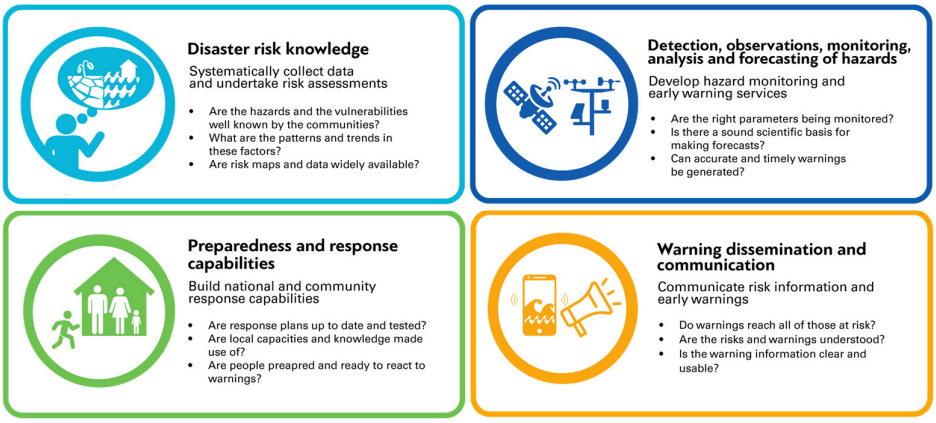

Figure 1. The Four Pillars of Effective Early Warning in the EW4A Initiative. Source: https://www.preventionweb.net/publication/early-warnings-all-executive-action-plan-2023-2027, accessed on 10 September 2023. See also, https://www.undrr.org/early-warnings-for-all, accessed on 10 September 2023.

What the SWOC analysis from the Cairo Thinkshop particularly reveals is that the contribution and the effectiveness of each of the four pillars of EW4A, alone as well as in concert with the other pillars, will be equally important to the success of the new initiative. This means, as a robust SWOC analysis of EW4A completed by the WMO (and perhaps other coordinating agencies) should also show, that meeting Secretary-General Guterres's ambitious goal by 2027 of EW4A will require operationalizing all the well-known benefits of EWEA, those which more than anything retain the crucial correspondences and seamless interactions between early warning (i.e., EW4A Pillars 1 and 2) and early action (i.e., EW4A Pillars 3 and 4) as fully equal components of the original anticipatory paradigm. Consequently, the new WMO-led initiative, renamed now as EW4A, should be able seamlessly to continue to fulfill the established promise of the EWEA brand, the success of which has, since its inception over 15 years ago, been grounded in just that fully realized correspondence between early warning and early action.

5. From EWEA to EW4A

Being able to tentatively draw this last conclusion from early evidence is encouraging, especially since EWEA was so abruptly replaced by EW4A as the name of the new initiative at its official launch at COP27. It is important to notice that "early warning" (EW) remains in both the old and the new initiatives' acronyms. This is important because, as suggested earlier, the primary focus for those closely involved with EW has for decades been on improving hydromet forecast reliability and credibility through technological advances. Enhancing the reliability of forecast probabilities has long been the chosen—but, importantly, not the only—way to demonstrate warning effectiveness and efficiency and so to increase public trust in national meteorological and hydrological services (NMHSs).

Here, some obvious questions arise: Does it really matter that early action (EA) was removed from the new title of the initiative, EW4A? Does this change suggest that a change has taken place that has de-emphasized early action (EA) to the benefit of early warning (EW)?

As discussed above, the fact is that, whether wittingly or not, "early warning" (EW) is retained in and "early action" (EA) is omitted from the new name, which suggests that a shift in strategic emphasis occurred once the WMO, along with the UNDRR, was officially tasked at COP27 with leading the new multi-billion-dollar initiative. That shift, though subtle, implies a regression away from the equal emphasis on the correspondence between warning and action that has been the focus over the past 15 years of the established, and trusted, brand that is the EWEA anticipatory paradigm.

The following comparison of the EWEA and EW4A acronyms is meant to be illustrative, suggesting what might be gained or lost by using one as opposed to the other acronym as if it were a product brand:

- *EWEA*, while explicitly affirming the correspondence between early action and early warning, only implies that early warning precedes early action, based on the positioning of EW in the acronym. What this means is that early actions need not wait for the issuance of early warnings to respond to a foreseeable hydromet hazard threat. An interesting question, therefore, is if a different meaning might be drawn from EWEA if the acronym had originally been EAEW (early action, early warning)?
- *EW4A* highlights early warning but also identifies an undefined 'All' that could, as discussed above, refer to various constituencies, some much broader than others. In any case, removing early action (EA) from the initiative's name only tacitly acknowledges that actions should, would, or could be taken in response to the issuance of an early warning.

Implied by this omission of early action from the name of the initiative is that the new initiative, as the new EW4A name explicitly states, will focus on early warning, which has always (in the past) focused its interests—and budgets—on pricey toys and technologies such as monitoring arrays on land, in the sea, and in space. The new name furthermore implies that the new initiative will (as in the past) also rely on advanced networks of data analyses and forecast/warning communication and dissemination, even if those analyses and communications do not correspond to the best practices that years of recent early action strategic research and operational tactics have revealed.

EA having been omitted from the name will likely now imply to users, as well as funders of forecasts and early warning systems, that societal preparations for and responses to foreseeable or imminent hazards are of a lower priority (are of less importance, that is) in the operationalization of the new WMO-led initiative. Although this newly wrought lack of correspondence between EW and EA makes little sense in terms of meeting the new initiative's ambitious 2027 goals, it certainly does reinforce the long held—though also long effectively discredited as illogical—perception that improvements in useful societal action can only occur subsequent to improvements in technical forecast accuracy, communication, and dissemination.

6. Concluding Thoughts: EWEA + EW4A = EWEA4All?

The newly minted, and decidedly problematic, name of the new WMO-led early warning initiative unveiled at COP27 in November 2022 could readily have been modified simply by merging the two competing acronyms: EWEA + EW4A = EWEA4All. The merged EWEA4All acronym would have acknowledged how EW and EA are known to correspond with and depend on each other for effective anticipatory responses. It would also have made explicit the key components and intents of the new initiative, thereby acknowledging that the initiative's target breadth is, indeed, the global 'All' of every person across the entirety of the earth, as Secretary-General Guterres intended in announcing his vision for the goal of the ambitious new initiative.

Tacitly acknowledging that global 'All', the merger of the two competing acronyms would have highlighted how the new initiative might benefit rich and poor agricultural and pastoral societies as well as the range of individual hydromet hazard experiences encountered within industrialized societies. It would also have expressed how the initiative might benefit the Global South as well as the Global North, thus effectively accommodating an array of desired objectives by explicitly blending both enhanced early technical forecasts and societal preparations to anticipate, and so more effectively mitigate through early action, hazard impacts around the globe.

In marketing terminology, therefore, EWEA4All could be viewed as an overarching, all-inclusive master brand: "Early Warning Early Action for All". EWEA—Early Warning, Early Action—is of life- and livelihood-sustaining importance to people on the ground who are likely to be best served, for a host of socio-economic, cultural, and political reasons, at

the regional level. Regardless of the initiative's name, consequently, we propose that such services could be provided by regional EWEA centers that could even now still be brought into existence as multinational, multigenerational, and multidisciplinary hubs of action under the overarching umbrella of the new EW4A initiative—thus essentially rendering the here-outlined effectiveness of the master brand of "EWEA4All" fully operative after the fact.

The success of the EWEA anticipatory paradigm as a branded acronym affirms that there is an explicit awareness of the correspondence between the producers (EW) of early warnings and the societal users (EA) of early warnings. Clearly, both sides are needed in a holistic process for effective hydromet hazard-related disaster risk reduction AND efficient disaster response and recovery. Early action is about society's strategic preparedness as well as its tactical readiness: preparedness minimizes potential loss of life and livelihoods and helps to mitigate the potential destruction of property and infrastructure through long-range climate-change-related planning. Tactical readiness focuses on minimizing loss of life and possessions in the near term once the hydromet threat has been confirmed as imminent. Together, as has been amply shown over 15 and more years through reliance on the social innovations of the EWEA paradigm, they can be deployed before the onset of hazard impacts to reduce suffering among vulnerable people and damage to valuable property.

The continued use of the original EWEA acronym by way of developing regional EWEA centers under the "Early Warning for All" umbrella has, like this, the possibility of turning regional potential energy into kinetic energy in the form of anticipatory preparedness and readiness for and effective responses to hydromet threats by drawing attention to warning *and* action as equal components of any effective early warning system.

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