UN-SPIDER Knowledge Portal

April 2017



UNITED NATIONS Office for Outer Space Affairs

www.un-spider.org



The UN-SPIDER Knowledge Portal

- Serves as a Gateway to space-based information;
- Its managed by the UN-SPIDER Bonn Office;
- Preliminary version launched in 2009;
- First official version launched in 2011;
- Re-launched with several changes in January 2015;
- 7,592 content items by June 2017.

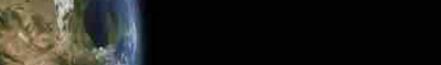






Services provided by the Portal

- News from the communities;
- Events calendar;
- Emergency support information hub;
- Information on UN-SPIDER activities;
- Information on UN-SPIDER National Focal Points; Regional Support Offices;
- Information on projects;
- Spanish version;
- French version







Services provided by the Portal

- Information on Emergency mechanisms;
- Links to Data sources;
- Links to GIS and remote sensing software;
- Links to training opportunities;
- Links to UN-SPIDER publications and reports;
- Recommended Practices (step-by-step procedures)

Spanish version;French version







Social media efforts

- Strategic objective: Raise awareness, including about RSO activities, and attract users to the Portal;
- Twitter and Facebook main channels;
- Steady increase in Twitter followers (8507 8% year-toyear) and Facebook likes (2799 – 15% year-to-year);
- Facebook brings more visitors to KP than Twitter;
- Overall, 1.6% of all visits to KP via social media;
- Those who come from social media channels tend to engage more with the KP;
- Potential RSO support: (Re-)Share content on social media.







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Logic of the content of the menus



Content compiled from different sources outside UN-SPIDER:

Content from the space community, the DRR and ER communities, etc. Content related to UN-SPIDER:

- Its advisory support
- Its networks
- Projects conducted
- News and events
- About Us (official publications)







Emergency Mechanisms

General information on existing emergency mechanisms established by space agencies and the UN:

- Copernicus GIO Emergency Mapping Service
- International Charter Space and Major Disasters
- Sentinel Asia
- SERVIR
- UNITAR Operational Satellite Applications Programme (UNOSAT)







International Charter Space and Major Disasters

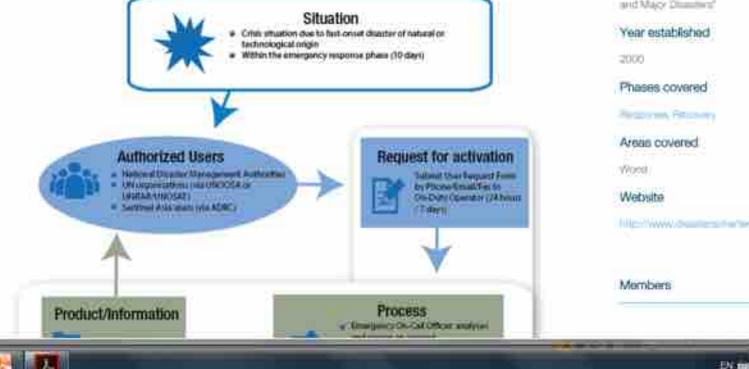
The international Charles on "Scarce and Main' Delations' is a systematic collaboration among space agencies, through which attentio-derived vibration and products are made available to support. Some engroups efforts. The Charles has been commonal short November 2000, and commits. He following dobal tasks agencies participate in the mechanism EBA, CHES, CEA, NOAA, COFIAE, IEES, JASA, DEDIT, UKSA & DNOS, CHISA, DLFL, HOFE, HIFE, EDMITISAT, Inst EDOSCIDSMOE.

City species that presents and am oble to provide scheme Carts (Company) data car be mentany of the Mernandras Charlier. The members comparate on a countary tand. Each mentar agency has committed resources to support the Charlier by providing space-defined data and products. The menthes take on the relevant of the recriminant by million and act as providmanagers for actualized, UNOCSAUN-SPICER and UNITARUMULAT are not formal members of the medianters, but are Name withorized to request the extention of the mechanism on certail of UN agencies, in countries attached by the stress



international Charles "Saace and Macy Disasters'

III C WWW/Dealers I - K do







org





• Hazard type/ Human aspects

- Disaster Cycle Phase
- Space technology

192 fields

different case studies/ research papers in 66 fields

Currently 199

Linked to 106 satellite sensor profiles and 35 providers





Space Application Matrix: What can be done (scientific and technical perspective)



UNITED NATIONS Office for Outer Space Affa UN-SPIDE		e-based information for	Disaster Management a	nd Emorgen	AL cy Response	South.	đ
Home Space Application	Risks & Disasters	Links & Réseurces	Advisory Support	Network	Projects	News & Events	About Us
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	Emergency and						
	Disaster Manager						
	The UN and Disat Risk Management		Constant -				
	The UN and Disa Management	*					
	The Senda			- al			
UN-SPIDER Regio	Framework for Disaster Risk Reduction) for LAC	in Mexico, 11	– 13 J	uly 201	7 man	e Nan zijn
	Natural Hazards	bre the k	Knowledge P	ortal			







Disaster Risk Management

When a factor over buch as a drought, food, cycline, earlydawe or trainent – among others) sittlers a community, leggering the loss of, or harm to life and the destruction or damage of intractingtom. It legislights the fact that the occelly and its assets are valventible. In subopticle its the impacts of frageric waters. In the context of characteristic the regards of frageric market the following facts waters.

- · The prographical area where the community is settled in
- exposed to such a hazard.
- The excerty encluding individuality and its infractional area as a subscription of the processing with well as subviced which expendences thereage is descention or an videorable.



Diseaser Flink

According to the territory of LECCE, deaster-real is defined as the optimum loss of the sport, or description or descended assets which could occur to a system, scorely or a community in a specific period of time, determined probabilitionly as a function of hazard, exposure, and capacity". In the technical series, it is defined in terms of the composition of three terms: function and variantability.

For instance, when a technice is established on the shores of a new, by sarrying out a frystrakic acelyse, hydroogeth can identify and characterise the food teaced. According to the UNIECH detrivious, a fragmed is characterised by its location, intensity or magnitude, frequency and probability", in some countries, auch fragmed areas outline the geographic detrict of floods which have a 100 year period of return. Any people, assets and intracticulates, as well as accounters booked reside the area, are exposed to floods. The degree of density is then obstracterised by its wine ability. For initialics, the car be defined by the physical situation of a hadding, as well as to volude score and accounting characteristics of a system. Additionity, varies/dely is further characterised by the coporties of accessive with a floods.







The UN and Disaster Risk Management



The United National designated the period Generer 1900-1999 at the international Decicle for Natural Discuss' Response (IONDR). Under the undereta of IDNDR, experts torremany folds began to shape the global harvework for structure roles and then manogeneral. Of carticolar miniancie was the introduction of teneral converts related to deserte min, including features, exocours, and mini as well as the tend to reduce characteristic so a more subtanable development of communities and balance. Many organizations of the United Nations system convector a variety of efforts and activities under the parameters of the Decema

In January 2005, the UN Office for Dearnie Rax Reduction (J1000/) and the Government of Japan holled the World Conference on Disartier Reductory (WCDP) in Robe, Japan. The cultures of this conference was the Hyogo Framework for Action (HPA). The framework, encounted by Y00 Member States, insched a members in catalyzing national and social efforts to induce dearable rok, all the while strengthening international cooperation through the development of regional strategies, plans and policies. It also marked the creation of goldae and regional policiers for dearable risk robuction.

In Minute 2010, the Gender Frankescoli, for descent risk reduction was adopted during the Third UN Contention of Dasater Size Reduction. The Sender Frankescoli, is the successor to the FFA and will dear efforts at the block, reduced, regions and reternational levels, between 2016 and 2030. It is adsorband in a levelar faithout to the FFA, providing globalice to total and reternational methods and sciencesters of keypercenters for adaptive and exclusive galaxies to reported and reternational organizations on free to contribute in these efforts.

The Sendai Framework for Disaster Risk Reduction

The Sende Framework part teen emphased with the anti-of-instabilitaty reducing dealer calculate or invest, five/control of instabilitation of instabilitation of persons, but remains, communities, and countries. The terminence excludes four process for action and eaven global targets. More information on the Pramework can be found teen.

UN-SPIDER

Order the gashtmes of the Growning on Perceta Uses of Galer Groce COPUCE, the Office to Cate Space Affairs of the I United Network (UNDOSA) established the United Nations Politicity for Disaster Metagement will Encoded, Personne UN SPECER) is 2005, with the aim of promoting the use of space-based information is at phoses of the dwatter management cycle

Relevant UN-SPIDER activities

UN-SPIDER Newsletter on Statos Technologies for DRR

WCDRR Working Bession: Earth Observation and High Technology to Reduce Risks

WODRR Working Session: Early Warning

WODER Public Forum Enhancing Disaster Restence by Function of Simulation, Semingrand Geospative Information

United Nations/Germany Expert Meeting on Space beend Information for Pood and Drought Rex Reduction

UN-SPICER Edu event at RM AMCORR

United National International Conference on Space-based Technologies for Dearber Management "Multi-hozard Dearber Hale Assessment"

Space Technologies for Diseiter-Rick Reduction Key Messages (PDF)

Related Links

- Marine





UNITED NATIONS UN-SPIDER KNOWLEDGE PORTAL

Soace-based information for Disaster Management and Emergency Response

Space Application Hame

Binks & Disastors

Links & Resources

Advisory Support Network News & Events Anout Us

Prosects

English Esperial Prove

The Sendai Framework for Disaster Risk Reduction

UN World Conference on Disaster Risk Reduction 7035 Sándei Jopon

The Sendal Framework for Deserve Flox Reduction was developed to guide efforts on disation coil reliazion in the penod between 2015 and 2000. The transverti was adopted during the Third Work? Conference on Disetter Risk Reduction, which was Held in Senthic Japan, Imm 14 to 18 March 2015. As in the case of its precedence, the Huogo Framework for Action (HPA), the Sendal Framework recognizes that States have the primary responsibility to prevent and endoor disaster mix, including interpretation.

The Sendal Framework Goal and Expected Outcome

Taking into consideration the fault that the FEA was instrumental in taking avairement on the need to focuse on disaster risk mitaction, in generating political commitment and in catalyzing actions by a wide range of staksholders at all levels. Memory Brans defined the goal of the Sendal Framework as follows: An prevent and reduce doubler ron transpt the incidenterilation of Programs and inclume economic intratural legal stroke health, initiate educational environmental technological policiel and institutional measures that prevent and rectuor burnet inspirate and its parameter, moreous property terms for requirements recovery and that attend/art realiseds. For more information on the Senda framework, Lick have.

The Sendal Framework: Priorities for Action

Taking into consideration the experience garent through the maximumiation of the FFA, the Sender Framewook adapted the inclum of provides to actory that were included in the UKA. The Service Frankwork includes tour provides

- 1. Understanding disaster mic
- 2. Silverghering datelier nik governance to manage distate risk:

Relevant UN-SPIDER activities

UN-SPIDER November on Space Technologies for DRR

WODRR Warking Semiority Earth Objervation and High Territosilogy to Herbite Hides

WEDHE Working Sensors Early Warring

WODRR PLENC FORMER: Enhancing Disaster Pelaitience by Fusion of Simulation. Sensing and Georgatori HADTTRACK

United Nations/Germany Expert Meeting on Spacebated intomistion for Flood and Drought Risk Reduction

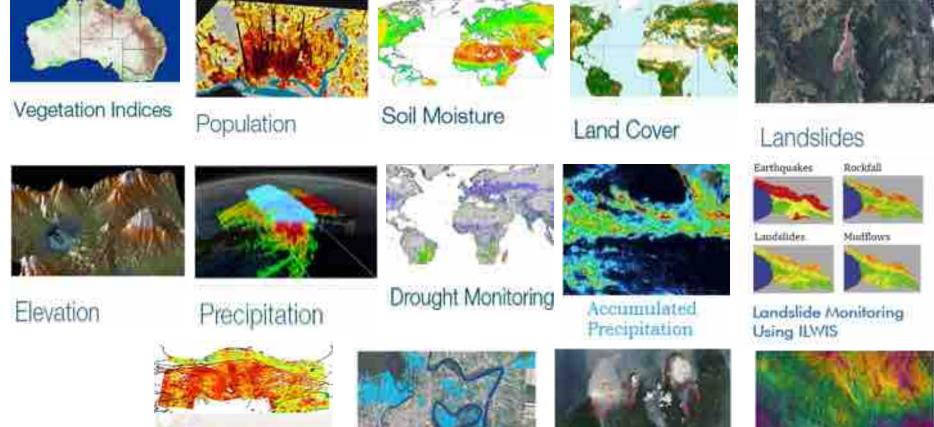
UN-SPICER-Bide event at this AMOURR

Unter Middons Infernational Confideence on Spade based Technologies for Disaster Management *Multi-fulzed





Data Application of the Month



Sentinels Earthquake Moniloring



Emergency Response

Forest Fires

UN-SPIDER

Free Satellite Data



Types of missions conducted by UN-SPIDER

Technical Advisory Mission (TAM)

In Technical Advecty Minister (TAM) is constructed to identify the means of a Minister Come registing its capability to key line advectings of space-based internation. As an one-reditational technology means, if is officially requested by the respective rational powerment and is carried out by it from of reports that UN-SPICER games. Typically, TAMs are one-week long response. The expert laser means with key denoter management and development authorities is the Government. United National registrations, regional and etternational organizations industries, and provide entrapresent to divide the use of space-based responses, the registration and etternational organizations industries, and provide entrapresent to divide the use of space-based responses, here we and visualize management is seen and so using provide entrapresent. To divide the use of space-based responses for the and visualize management is seen and based and the summaries at the response to the transponses.

Emilie District Advisory Memorie

Institutional Strengthening missions (ISM)

With an Institutional Strengthining Mission (ISM). UN-SPIDER assess a Member State in increasing its capacity to benefit from space-based information for risk and disaster management. ISMs are usually carried out by experts from UN-SPIDER and may include, depending on the situation, experts from other institutions excluding the UN-SPIDER Regional Support Offices. Mission activities can include training personnel of facilitating access to space-derived dutty. UN-SPIDER also facilitates inter-institutional workshops for policy and strategy design leading to more effective use of geospatial data. Such workshops can also lead to the set up of geospatial infrastructures, allowing institutions to more easily occess and share into and index index end to the set up of geospatial infrastructures, allowing institutions to more easily occess and share into and information. Usually, ISMs are followed up on the recommendations of a UN-SPIDER Technical Advisory Mission.

From talk area living here of Manual.

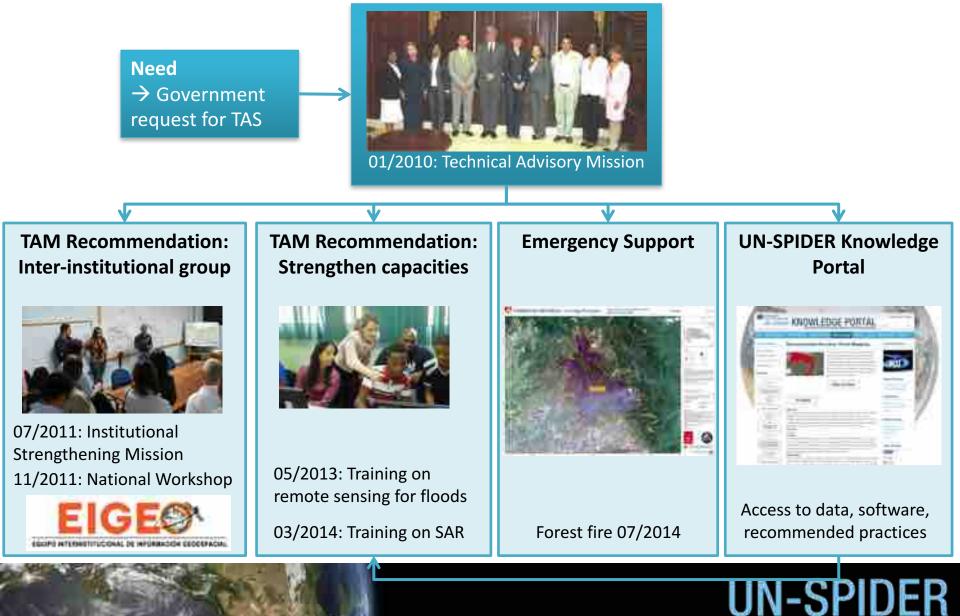
Expert missions (EM)

Excert Missions we short term with exploratory in return. As opposed to TVMs which are new restluctionly termsteed, an ESF usually consists of one UN-UPEER expert meeting, with representatives of time to more restluctors. This expect is in most cases a UN-UPEER relevance of atally. EMs can cargo from a scelarly revealing, with the prospect of being extended title a constitution period spectra gravity period spectra at the prospect of the transfer cargo from a scelar to provide the prospect of being extended title a constitution period spectra gravity the scelar to possible of scelar to possible to provide the p





Technical Advisory Support (TAS) and Follow-up: Dominican Republic





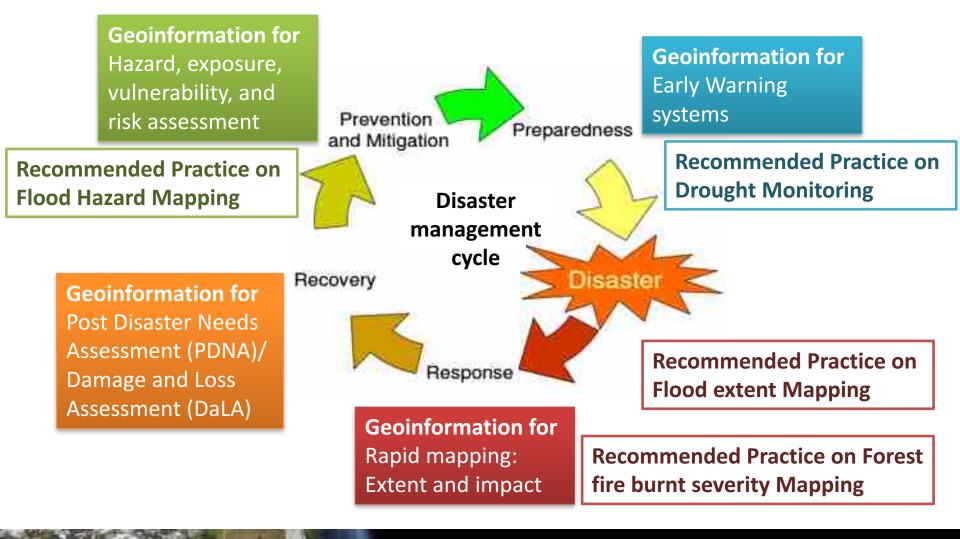
Recommended Practices







Supporting the full disaster management cycle





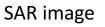


Recommended Practice Flood Extent Mapping

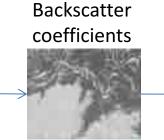
Binarization

How can I create a flood extent map based on SAR data using free software?

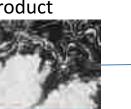
Recommended practices by UN-SPIDER's Ukrainian Regional Support Office provides step-by-step instructions.







Filtered image product

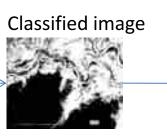


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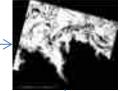
Flood Extent Map



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Terrain corrected <u>classified image</u>

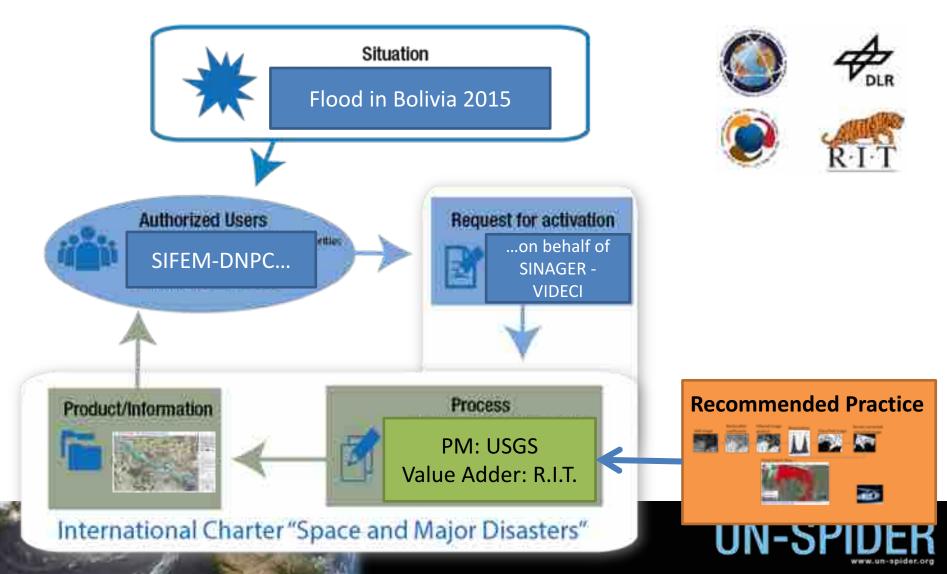








Recommended Practice Flood Extent Mapping – Use Case





Recommended Practice Flood Extent Mapping

Santa Rosa, Bolivia Flood Areas - TerraSAR-X Scene Data Capture and Flood Analysis: 2 March 2015

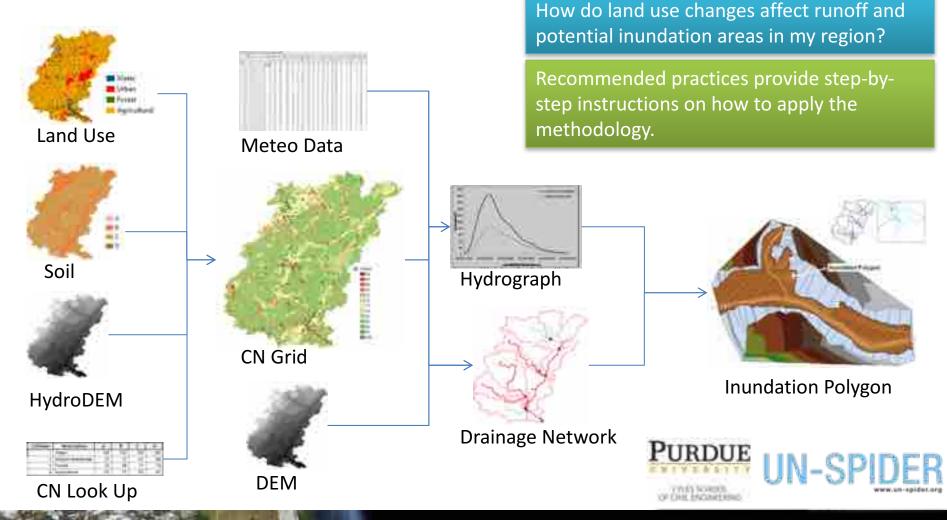
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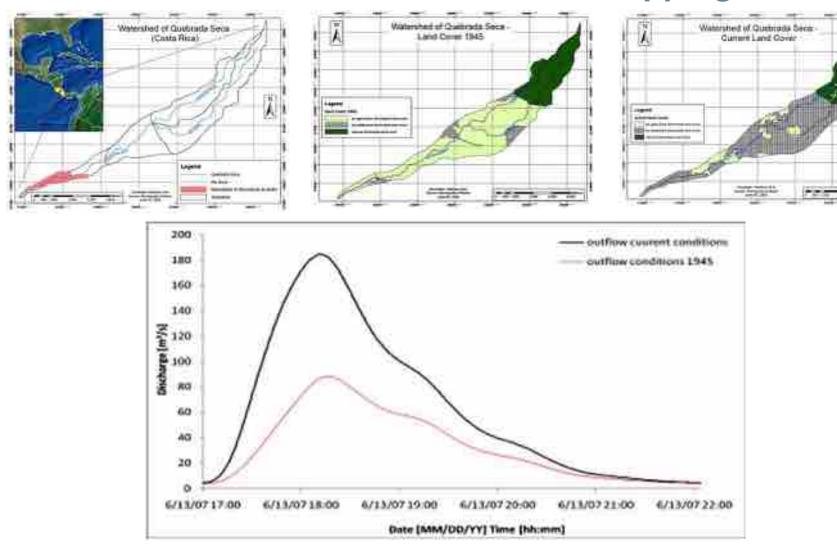
Recommended Practice Flood Hazard Mapping







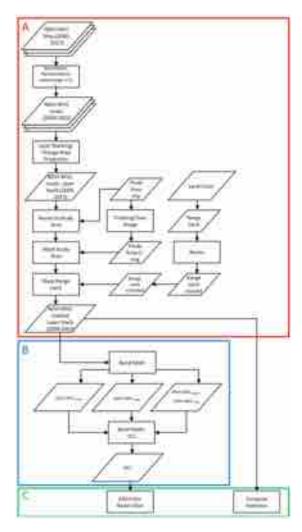
Recommended Practice Flood Hazard Mapping – Use Case





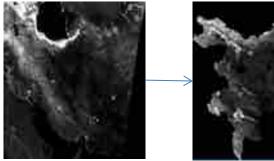


Recommended Practice Drought Monitoring

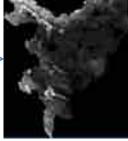


How can I estimate whether the current drought is more severe than a previous drought?

Recommended practice by UN-SPIDER's Iranian Regional Support Office and Federal University of Santa Maria in Brazil provide step-by-step instructions.



MODIS NDVI time series



Pre-processed images



VCI maps

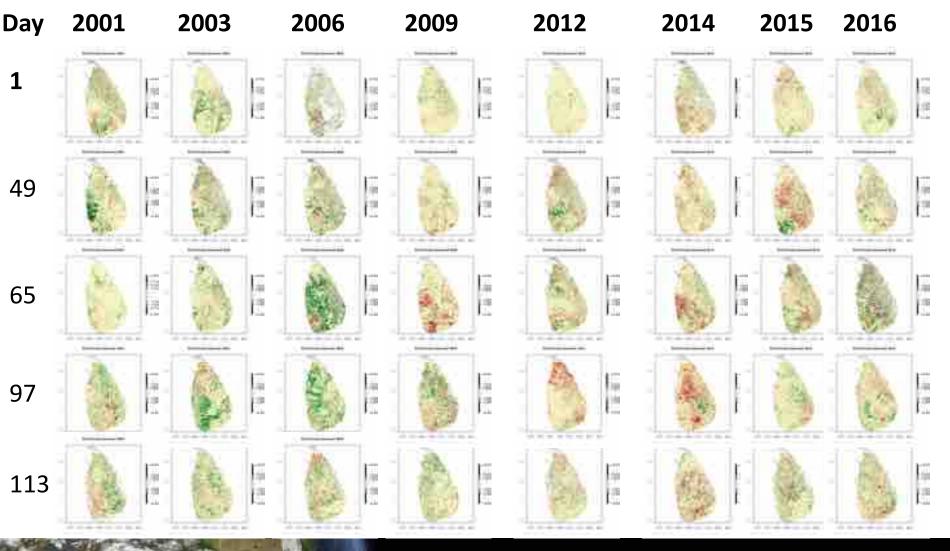






UNITED NATIONS Office for Outer Space Affairs

Recommended Practice Drought Monitoring



UN-SPIDER





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Regional Support Offices



A Regional Support Office (PSO) is a regional or indicate or experite that is not so within an entrong entry by a Member Usine or group of Member Dates that have put toward as offer to see up out fand the proposed RSD. As RSD call be indeed by a special specify, a member center, a scientify, or a clearly management contaction, to new total a fee examples. These offices communicate and coordinate with DN SPIDER on a regular basis, covering the rearms of Outwach and Capacity building, as well as Hongsmar Corporatory and Technical Advance (taleport).

The RSD Autor's contailous a left of the UN-SHDEH RSDs as well as a titler descrutant of each Ofice, and an overview of its facation, experime, and installucture,

Present structure front the insuration of the Program Exception Office that you are intermined in-







Global Partnership using Space-based technology applications for disaster risk reduction: GP-STAR

Partners

UN Agencies;





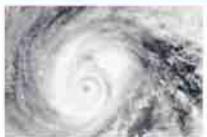


United Nations Convertion to Combat Desertification









UN-IPPEEN and to produce and his take the profile of space based information. As ginted domine relicitorium limnos reache

UNCOSAUN-SPIDER, together with many partners from the Salace. Earth Observations, GM Protectory communities, and regional and interneticoal organizations have conducted a variety of efforts once June 2014 as a way of spearteading efforts regarding the incorporation of the use of Scape-based Technologies and Applications and Earth observation in the context of the Sector Primework for Dramme Rate Pethastron 2015 - 2000.

UNDOGAUN-SPIDER, OPP. LIVI, and TUR worked with key (overnment apences in Auta Ahica, Europe, Latin America and the Carobean to emain that the proposed teel on the use of Earth nonmations and space-based technologies was introduced ri Insi Serida Fransmurk.

These allocs that been ecolorised by government statilizations of the Facheral Papadole of Gennery, the Paceter's Papadole of China, Itie Dominican Plepublic, Itie Republic of Guatemata and the learnic Republic of Isaru







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SEWS-Drought in Latin America and the Caribbean

SEWS-D partnera

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Other has Oness Learny Lifting

Faild and Approachese Departmentees of the System Department



Dry Comer of Carego America Israego prhytomic Cocentry of CAC

The many hequilit and influence choughts that are having place in the su called "Dy Comport of Central America and the Dominican Republic, as well as the high of rand communities, are futuring rational and total governments in countries of these regions to implement a series of measures in order to respond to the interacts caused by those relaxing to Automations have installatered effects, to monitor intraction throughts through the national methodogical departments and interact in the interacts during the interactions methodogical departments and interact and interactions in agriculture, methodogical departments and installation resources and their government agriculture, to assess the intracts of dioughts and mesoices to copy with their impacts.

Taking note of the sense repart of straights and of the tast that is must contain outs on random and fall tata from externationals of the ministees of agriculture are the

Intell portrivities word to trace. The manifestation of droughts, UN-BPICER has brought together serveral vitemational, regional and talkonal partners at a way to promote the use of on the effects of drought on sole and vegetation, as a way to strengthen reduced onsught serve worming systems.

The specific pranctives of this project invito strengthen national drought policies based on the proceptes of integral has reduction, and to enhance the capacity of ministries in agriculture and environment, out protection agencies, meteorological observationes and coller relevant institutions, as a way to generate and make use of specel-based information on a permission to the improvement of the DEWS routine operatory.



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CAPEN.



Hearground Information

Agriculture is the minediate victim of drought counter, - impacting cosp aires, or pproduction and term employment whose implications are manifested by transie interactions with the encador. Drought differs from other reduce features in many respects -most compression and weet understood of all disenters.



News and Advancase

At this page we will post the reveal form antibuliary in parameters where the project is being executed and from the partners.

Share this page









SEWS-D Background Information

SEWS-U

Fament

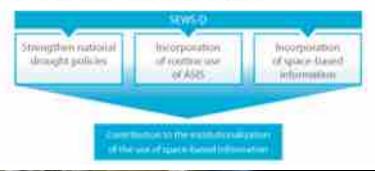
Countries

Drought Indices

Agriculture in the interestable vight of diought income, which impacts the crop assa, crop production and here emoloyment and servere implications for the affected population. Enought is the most complex and least ancendroid of all datables and others from other right at factors in many emploits. According (most and Talakeer) (2000) scientifies have agreed on general delinitions of drought, According to Beran & Roder (finite). "The chief characteristic of a drought is a recrease of weer availability in a particular period over a particular area." This definition highlights three features of a drought intensity, duration and talked coverage. Verywork (1967) claims that the links of general acceptance of a precise and objective delinition of drought, files them tore of the principle oblicates to the meaningston of Brought". There are three Yees types of broughts, normely:

- Meteorological chought valued to rainfalt articults.
- · Hydrological desight: determined by water Media Histerico's
- Apoultinal drought: reared to the mambility of water for crops.

Traditionary, Drought Early Warning Systems (DEWE) are operated by mesonatopolic observationer or initialize in countries of this region using rainful delia handal anomalies. The Standardood Westellation lindex is being promoted for such purposes. Ministries of Agriculture often use their indensionals in the feel to getter applicous data and information on the impacts of droughts and as a way to generate as ownal patters regarding the extent of droughts and their potential regards, intervent their is no real use of to track changes in the condition of the vegetation as a way to coordinate related amongs) data in order to enhance the essential discloyments of the DEWS.









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Newsletter

Schuttensie

The UN-SPIDER Revealed is published periodically with the aim of highlighling the samonal UN-SPIDER achievements, mean and activities. In addition to the online publication, if its distributed in hant copy at donliverices, workshops, and various UN-SPIDER events. It could include any of these sections, depending on the same and the nature of the sectional news:

- Workimpsis-organized or supported by UNCOSA/UN-SPICER
- Technical Advisory Support-covering Horient Technical Advisory Masions: Miniman, expert meetings
- · UN-SPECER's support to disalitier response and disaster risk management.
- Interview with one of our partners, workshop participants; colleagues
- A Case Blody or Feature -for example a porting of one of our partners.
- Knowledge Portal news new features or updates on the UN-SPIDER online portal.
- · Network rease -developments in the network of Regional Support offices and with National Foral Points







UN-SPIDER Newsletter 1/17: UN-SPIDER's Engagement in Promoting Science and Technology in the Implementation of the Sendai Framework

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NEWSLEITER

UN-SPEER'S Dispersent in Proceeding Sciences and Technology in in Implementation of the Montal Humbleck



Scence and Hichcology, Including Sath, https://www.including.com/ inputs for impairer nets reduction. The Losted Alattons Office for Dumin Space Atlans (UNOCSA), through its Plattern for Ker Depender Management and through sy Plactaness (UN-SPECIER), is converting to promoting integrated applications of space Mctricougles for the implementation of the Sendar Prenowcoli.

in this base of the remainfile, we present three remains we're involved with that contribute to the objective Ellergithering Early Warring Systems for Drought (SENS-C), the international National on Nulli-Early Warning Systems (IN MI/EWS) and the Clobal Partnership Using Epico-tomiel Technology Applications for Dismiss Hole Reductors (GP-STAR), is an interview with Daniel Trouble Programmer Officer at the United Nation: Convention to Constal Commission LACCE, we tak stold the gobal efforts to achieve droughts and the ide of Early Warring Systems #1.018 context. Frisity, UNDOSA Deletter Sincreto Di Papo weller about the UNDPACE-SI prome Municher by the Constituties on the Respectal Uses of Ooke Illipace (COPUIDS) and apported by LNOOSA with the objective of formulating a long-filmiveicn - Sakazoo, Through this process, COPUXS and UNCOSA wer to build suverges with the 2000 Agenda for Suntainable Development. the Sendui Flumework and the Plana Agreement.

Issue Date:











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What is UN-SPIDER?



About UN-SPIDER:

In the resolution 05/110 of 14 December 2000 the United Nations General Assembly agreed to establish the "United Nations Platform for Oscariar Management and Enlargency Platform - UN-SPIDER" as a new United Nations programme, with the following mission statement. "Ensure that all countries and international and regional organizations have access to and devince the capacity to use all types of space based internation to suggest the full disaster management cycle".

A number of initiatives in recent yours have contributed in making suide technologies available for furnantarian ad and emergency response. Yet, UN-SPIDEF is the first to local on the need to ensure access to and use of such technologies during efficiences of the dealer management cycle, including the reik induction phase which is crucial for reducing the tables of lives and property.

The UN-SPEER programme is achieving the by fooding or being a galaxies to souce information for deather management apport, by sening as a bridge to connect the deather management, risk management and space communities and by being a facilitator of capacity building and methational immightening, in particular for developing countries. UN-SPICER is being insufermented as an open nervolat of providers of space-based solutions to support deather management activities. Besideer Vience (where UNCCSA to located), the programme also has in office in Bonic, Germany as well as an office in Belling, China.

Enancial and in-Kind support, in the case of Vience, is provided by the Austrian Federal Ministry for Transport, Innovation and Technology (Immit) and the Austrian Research Promotion Agency (FEG).

The Bonn Office benefits from the financial and in-kinit support provided by the German Faderal Ministry of Economic Atlains and Energy (BMW) and the German Aerospace Center.

The Beijing Office benefits (ton) the mancial and its kind support provided by the Meliotry of Cleit Alfairs of the People's Papulsic of China.

Please find below a list of missiant official documents. Reports in all prioritical UN Microages are sticl analytic on the UNOCEA infector.







Challenges

- One-portal to fit all types of audiences (decision makers, practitioners, students, etc; space community, disaster risk reduction community, emergency response community);
- Lack of manpower to make Spanish and French versions more attractive (elevate the number of visitors);
- Migration process to a new hosting site taking longer than expected;
- Lack of manpower to edit new content.







Way forward

- Continue incorporating new content, updating existing content;
- Add additional segments as per 2012 evaluation (early warning, vulnerability, revision of segment on hazards);
- Add content / recommended practices on emerging topics (Sendai framework); on the combined used of three satellite technologies (Earth observation, satellite telecommunications, GNSS); and on the combined used of space-based and in-situ data in particular applications;
- Conduct missions to countries to promote the use of the content in the Portal;







Way forward

- Continue to conduct training activities on the use of the Recommended Practices as part of projects targeting institutional strengthening;
- Modify/improve the content in some pages to elevate the number of visitors to such pages if possible;
- Work with specific staff in DRR / ER institutions in developing countries as a way to enhance the use of the Portal and recommended practices;
- In the longer term, incorporate versions in Russian, Arabic and Chinese







Questions?



